

An abstract watercolor illustration featuring a large, stylized nose and olfactory bulb in the center. The nose is drawn with thick black lines, and the olfactory bulb is a large, rounded shape with a textured, watercolor-like appearance. The background is composed of various colored washes, including red, orange, yellow, green, and blue, creating a vibrant and colorful environment. The overall style is artistic and expressive, with a focus on the sense of smell.

A COLORFUL WORLD UNDER THE NOSE

DESIGNING FOR OLFACTORY BRAND EXPERIENCE

CHONGBEI SONG

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MASTER THESIS

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ABSTRACT

With their reflection on the conventional vision-dominant research focus, the olfactory experience has been recently attracting a rapidly growing number of researchers from various fields to pursuit new knowledge on it. Psychology (from a more basic perspective) and business consumer research (from a more applied or practical perspective) perhaps are the two most prolific fields of this topic. However there is an obvious gap between the theoretical and laboratorial findings and the real world commercial practices. This thesis studies the existing scent design and olfactory branding process from design research's perspective, and aims to bridge this gap by providing a guidance of constructing olfactory experience in the branding process to enhance the long-term consumer-brand relationship.

In this thesis, a synesthetic visualization approach is created in order to assist consumers communicating the olfactory imagery and association, meanwhile to help olfactory designers obtain more inspirations from the target consumers. Furthermore, an optimized olfactory design process is proposed for optimizing the design phases of consumer research, scent creation and implementation at a strategic level. It provides a powerful tool to help companies access a synergic olfactory branding strategy.

The optimized design process was implemented in a real design project-“ON THE ROAD” which involved designing a signature scent for a new shoes brand, and also integrating the olfactory touchpoints in the sensory branding process.

Key words: Olfactory design process, Consumer research, Scent association, Expression, Synaesthesia, Brand experience, Sensory branding, Constructive Design Research.

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Choosing this research topic is a challenge for me. It is quite a new area for design research, and requires a lot of knowledge in Psychology and Marketing fields that I am not familiar with. However, I insist on sticking with my personal interests and not fear of trying, because no matter what I do, I learn something from it. I believe in what Les Brown said, "Shoot for the moon. Even if you miss, you'll land among the stars."

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1

■ INTRODUCTION

This chapter introduces the general background of this research - the sense of smell in the context of brand experience, and meanwhile establishes the research questions and objectives.

1.1 BACKGROUND

Psychology research has shown that olfactory stimuli may trigger older memory and arouse more emotional response than verbal or visual stimuli. These effects of scent are supposed to benefit in branding and marketing, however few companies know how to proceed olfactory branding effectively to capture those effects. (Herz, 2007; Hughes & Tillotson, 2006; Zucco, 2003) The fact shows the gap between academic research findings and business practice is still distinct.

To bridge the gap, a systematic study of olfactory design in the branding process from design researcher's perspective is necessary for exploring the potential explanation of the contradiction. Design researcher can play a role in reinterpreting the findings from psychological research and bring Human-centered design methods to propose possible solutions.

Designers have contributed their skills and knowledge in generating ideas for scent applications, from generic application in hotel and retail stores to some innovative usage in jewelry, cellphone and even fire alarms for deaf (Johnny, n.d.; Kent & Noka, 2011; Levenstein, 2008; "Scent Drive," 2007). Designers also have adopted new technologies to develop scent diffusion equipment for implementing scent solutions. But few of them have thought in deep about how and why these scent are designed like that and used in that way. This thesis provides an opportunity for designers to look on the front-end of olfactory branding process. Furthermore, it is valuable to use qualitative research methods to probe the problem from emotional angle instead of rational analysis with statistical methods that psychology and marketing research have been used for studying in this subject.

Since this topic is relatively new in the design research field where only a few previous studies I could refer to, constructive design research approach is adopted as it is claimed to suitable explorative practical relevant research, and the construction is developed in groping way and will continue in future.

1.2 THESIS STRUCTURE

The second chapter presents the research framework based on the constructive design research process, and then followed by a description of how the research methods and process applied in different part of this thesis.

The main body is divided into three parts and starts from the chapter three.

Chapter three is the understanding part, mainly depicts the literature review on smell experience, effect of scents on human memory, emotion and behavior, and presents some design cases of olfactory marketing.

Chapter four is the exploration part, aims to explore the potentials and possible problem in the existing scent design process through expert interviews, and intends to understand the consumers' competence in olfactory imagery, association and expression through focus group and scent association test. In the end, a communication approach is proposed for engaging target consumers sharing their brand associations from sensory point of view, from which olfactory designer may get more inspiration to extract story embedded scent ideas.

Chapter five is the construction part, in which an optimized olfactory design process is proposed based on the findings from literature review and explorative studies. The process was implemented in a real design project-“ON THE ROAD” which involved designing a signature scent for a new shoes brand and also integrating the olfactory touchpoints in the sensory branding process.

Chapter six summarizes the research work done so far, including discussions and conclusions of the study. Also theoretical contributions of the work as well as future researches are discussed.

1.3 RESEARCH OBJECTIVE

The research objectives of this thesis are:

- 1) To explore the potentials and possible problems in the existing commonly used olfactory design methods and process;**
- 2) To optimize olfactory design in the branding process.**

1.4 RESEARCH QUESTIONS

The following presents the research questions of this thesis:

- 1) How to design a scent that is able to convey the core values of a brand, and improve the communication with the target consumers?**
- 2) How to integrate olfactory touchpoints to leverage the entire experience and eventually enhance the brand-customer relationship in a long term?**

In the basis of constructive research process, below are the deliverables for achieving these objectives:

- 1) An approach of synesthetic visualization as a medium to assist the communication between olfactory design experts and target consumers;**
- 2) An optimized olfactory design process as a powerful tool to help companies access a synergic branding strategy.**

2 ■ RESEARCH FRAMEWORK AND METHODOLOGY

In this chapter, the research strategy and methods used in this thesis are presented. First, the constructive design research approach is explained, followed by a description of how the research methods and process applied in this research.

2.1 CONSTRUCTIVE DESIGN RESEARCH PROCESS

Currently, there are many successful ways to integrate design and research. (Koskinen, Zimmerman, Binder, Redstrom, & Wensveen, 2011). I selected the constructive design research methods to achieve such integration because it was claimed to suite for the practical relevant research (Lukka, 2003).

Constructive research approach is used to create better solutions to solve problems in the real world and to make contribution to the theory of the discipline in which it is used (Lukka, 2003). It has been successfully used in the domain of business, technical sciences and information systems(Lukka, 2003), now it is also recommended in design realm. Constructive design research is a new word introduced in book “Design Research Through Practice: From the Lab, Field, and Showroom”, it refers to more concrete construction takes centre place in design research to constructing knowledge. Construction typically is a prototype, but also can be a scenario, a mock-up, or just a detailed concept that could be constructed (Koskinen et al., 2011). As sociologist of science Helga Nowotny and her colleagues distinguished, the research mode to second modernity is strong contextualized, public-led, implication-centered. (Nowotny, Scott, & Gibbons, 2001). The constructive design research also linked with society, focuses on applications or implications to society rather than making or explaining reliable knowledge.

There are five key elements of constructive research which extracted from The Constructive Approach (Kasanen, Lukka, & Siitonen, 1993).

- Theory connection: it is linked to previous theoretical knowledge on which the study is based on.
- Practical relevance: it includes real-world problem analysis.
- Construction: it produces an innovative construction as a solution to the initial problem.
- Practical functioning of the construction: it implements the developed construction to test the applicability of the solution.
- Theoretical contribution: it reflects the empirical findings back to theory.

Constructive design research values thinking by doing, and has gained a degree of maturity. Many design programmes in universities and design agencies played a role in paving the way, and turned some design activities like scenarios, personas, cultural probes and so forth into research methods (Koskinen et al., 2011).

2.2 METHODS APPLIED IN THIS THESIS

This thesis generally followed steps that constructive research usually contains (Lukka, 2003). (See Chart 2-1)

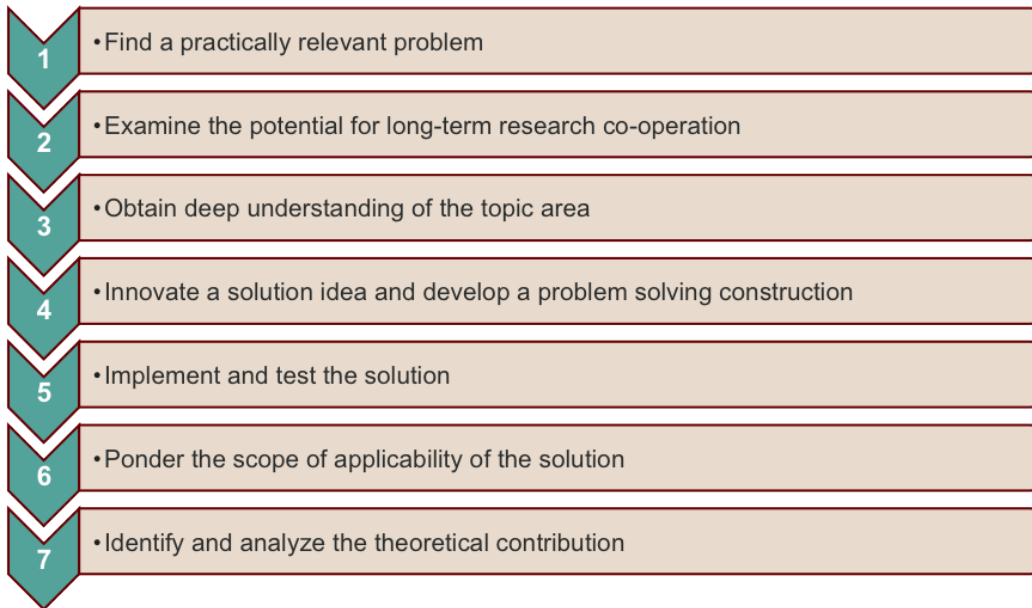


Chart 2-1: Seven steps of constructive research process (Lukka, 2003).

The constructive research process was applied in this research as four stages in which those key elements were addressed respectively. Methods were analysed and selected according to the research purposes in different stages. There are several methods that can be potentially adopted in the study: quantitative methods like survey and experiment, quantitative methods such as observation, interview, focus group, collage, and experience prototype. After comparison of strengths and weakness of these methods, focus group and other ethnographic research methods such as interview and observation were applied during exploration stage, while home-interview, collage, persona, mood board, experience prototype and customer sensory journey map were adopted in development stage (See Table 2-1).

CHAPTER	KEY ELEMENTS	METHODS
Chapter 3: Understanding	Theory connection	Literature Review
Chapter 4: Exploration	Practical relevance	Expert Interview Focus Group Scent Association Test Observation
Chapter 5: Construction	Construction, Implementation	Home-interview Collage Persona Mood board Experience prototype Customer sensory journey map
Chapter 6: Framework	Theoretical contribution	

Table 2-1: methods used in different chapters

Following, I will describe the methodology of focus on two main stages: Exploration and Construction. The aim is not to give a detailed account of the various methodological issues relating to this research, but rather to highlight some of the central concerns involved in adopting approaches to the exploration studies and construction process.

Exploration

In this stage, research should not be seen as an attempt to provide truths about the olfactory design, but rather as an attempt to first raise questions about what are the potentials in the scent marketing practice and what are the possible problems in the existing scent design process; secondly understand the customers' capabilities of perceiving scent, generating associations, obtaining olfactory imagery, and expressing the perception. The research in this stage can therefore be seen as being exploratory rather than confirmatory.

The quantitative research methods were considered not as suitable as qualitative methods regards

to this research. Experiments are frequently used in psychology studies related to exam the scent effects, but the results turned to be wildly divergent. It is mostly because the variables are always difficult to control, which actually influence the results significantly. And the experiments usually neglect the cultural factors that this study takes into account in particular. Instead of using experiment, I choose to use qualitative research methods such as expert interview, focus group and scent association test to obtain qualitative data both from experts and customers' viewpoints.

Construction

The research strategy in this stage is research through design grounded in a project. In chapter 5, the olfactory design process is constructed based on the previous research findings. The process consists three phase including 1) front-end exploration for communicating the brand core values with target consumers and understanding their associations, 2) creating story embedded scent and integrating the olfactory touchpoints in the overall customers' sensory journey, 3) test the sensory journey before implementation. The process was tested and validated through a project, which mainly about olfactory branding for a new shoes brand "ON THE ROAD". In the first design phase, home-interview as an effective and preferred method was adopted to understand target customers' lifestyle, their attitudes towards life and shoes. And collage is used to visualize the target group's sensory association of the brand core values. After interpreted the consumer research data, persona is used to present the target groups' characteristics, and mood board is used as an interpreted result from customers' collages, that reflects the theme and tones settled for the entire brand sensory experience. In the second design phase, experience prototype is used to create a multi-sensory environment for scent selection. When the signature scent is developed, olfactory touchpoints were mapped out and integrated in a customers' sensory journey. Therefore, the journey map approach from service design was borrowed and effectively applied.

3 ■ PART I: UNDERSTANDING

This chapter mainly depicts the literature review on smell experience, effect of scents on human memory, emotion and behavior, and presents some design cases of olfactory marketing.

3.1 SMELL EXPERIENCE

From a biological point of view, the sense of smell is the most ancient and primal of all our senses (Herz, 2007). Our smell experience starts from the stimulation of olfactory receptors covering nostrils, and then the smell information is transmitted from the olfactory receptor neurons to the brain for further processing (Gottfried, 2006; Rolls, 2001), during which, two structures called amygdala and hippocampus in limbic system are activated. The amygdala region is an emotional center of the brain that plays an important role in handling emotions while the hippocampus region is significant for evoking memories (Savic, Gulyas, Larsson, & Roland, 2000). This unique connection is the key to understanding why odor-evoked memories are more emotional than the memories evoked by other sensory stimuli (Herz & Cupchik, 1995).

The perception of smell is hard to articulate. In *A Natural History of the Senses*, poet Diane Ackerman (1991) notes that it is almost impossible to explain how something smells to someone who hasn't smelled it. On account of the diverse odorant molecules that trigger our perception of smell, smell cannot be measured on the kind of linear scale that scientists use to measure the wavelength of light or the frequency of sounds (Pines, 1995). Besides, the perception receives influence from optical stimuli, especially color. For example, look the blue color and smell a peppermint scent leads to a perception of lower temperature and calmness. (Tillotson, 2008)

Preference is another relevant conception in addition to perception. There are some essentially generalizations and individual differences in scent preferences. Smells like spoiled milk, decaying vegetation are universally considered to be unpleasant, while floral scents are regarded as pleasant in any cultural background (Moncrieff, 1970). Different preference may attribute to physiological predispositions such as gender, age, or illness, others may be conditioned responses to past experience (Wasserman & Miller, 1997). Both anecdotal evidence and scholarly research have indicated that scents paired with an experience often become powerful cues for that experience for years to come (Richardson & Zucco, 1989)

3.2 EFFECTS OF SCENT

From conventional wisdom view of scent effects, scents are hypothesized to affect consumers by triggering memory, altering emotion and changing approach or avoidance behaviors (Bone & Ellen, 1999).

3.2.1 *Effects on Memory*

The French novelist Marcel Proust (1871–1922) was the first to link smell to memory. In his novel, *Remembrance of Things Past*, he described his experiences of a flashback to his childhood by the smell of Madeleine:

“... As soon as I had recognized the taste of madeleine soaked in her decoction of lime-blossom which my aunt used to give me ... immediately the old grey house upon the street, where her room was, rose up like a stage set ... and with the house the town, from morning to night and in all weathers, the Square where I used to be sent before lunch, the streets along which I used to run errands, the country roads we took when it was fine.”

This famous instance of Proustian memory formed the basis of the Proust phenomenon, the ability of odors spontaneously to trigger autobiographical memory, which is old, emotional and highly vivid (Chu & Downes, 2000) and has been reported by numerous investigators (for reviews, see Conway, M. A. & Rubin, D. C. (1993). Since then, there were many experiments found evidence that olfactory stimuli can cue autobiographical memories more effectively than other sensory stimuli (Herz, 1997). Previous studies have also shown that scent relevant memory may last longer and the forgetting of scents is considerably slower over time (Engen & Ross, 1973; Lawless & S., 1975).

3.2.2 *Effects on Emotion*

Previous studies suggest that certain scent can evoke emotional response which may result from learned associations with the scent, such as food with natural scent, products with artificial scents (e.g., PlayDoh), places (e.g. coffee shop), and events (e.g., Christmas) (Kirk-Smith & Booth, 1987). Additionally, researches also pose scent evoked memories can arouse stronger emotional reactions than those evoked by visual, auditory, or tactile cues (Herz, 1997). Though review of the literature, I find although the scent are elusive, researchers' interest in scent evoked affective response is mounting.

3.2.3 Effects on Behavior

Emotional responses to scent are speculated to result in approach or avoidance reactions relevant to the marketing context (Herz, 2006). In more specific terms, approach behaviors can be described as an attraction for the marketplace, a willingness to explore and stay longer, an influenced product evaluation, and a tendency to increase spending levels, and the likelihood of return to the store. Avoidance was defined as opposite responses (Bitner, 1992). But these efforts have mainly about the effects of ambient scent (Krishna, Lwin, & Morrin, 2010).

3.2.4. Comparison of effects between ambient scent and product Scent

In order to effectively apply scent in consumption context, it is necessary to analyze the different effects of different scent forms. Consumer researches categorize scent relevant to consumption into two forms: Product Scent, which is often applied on individual product, reflects with certain features of product or product range; Ambient Scent, which is applied in the ambience, as a part of the overall atmosphere (Gulas & Bloch, 1995)

Obviously, product scent enhances a product's distinctiveness, which helps consumers remember it from other products. Studies in business psychology also shows that when a product is scented, long-term memory for that product's attributes is highly enhanced, however, there's few evidence proved ambient scent has the same effects. A possible reason is that most of the scent related associations created in long-term memory are focused on that product. (Krishna et al., 2010)

Ambient scent is described as an environmental cue that influence customers' emotion by comparing with scent preferences and result in approach or avoidance reactions. Unlike product scents, ambient scent has the influence on all objects in the retail setting, including those products that would be difficult or inappropriate to add scent (Gulas & Bloch, 1995). The effects of product scent and ambient scent are compared and summarized in Table 3-1.

EFFECTS ON	AMBIENT SCENT	PRODUCT SCENT
Association	All objects in the retail setting (e.g. store lighting, setting, sales man)	Single product
Memory	Overall impression	Single product information (e.g. brand, packaging, form, material, color, etc.)
Distinctiveness	Store or brand	Single product

Table 3-1. Comparison of the effects of ambient scent and product scent

3.3 OLFACTORY MARKETING AND BRANDING

Our senses have the function of forming our memories, emotions and behaviors. So far, the sensory cues that often found in the market place consist primarily of visual stimuli, often but not always, accompanied with audio stimuli. Other sensory cues are usually not present to the market place (Lindstrom, 2005). As most studies suggested, the more senses are engaged in a brand, the stronger emotional connections with consumers will be established. Therefore, if brands want to successfully build and maintain loyalty, they need to find ways of appealing to the other neglected senses in the future (Lindstrom, 2005). Olfactory branding as promoted in this thesis is a direction to complement the sensory branding strategy.

In order to integrate the powerful sense of smell in brand communication to achieve an effective multi-sensory branding experience, it is important to understand the role of scent in the brand expression. In the realistic cases, when visual and other sensory characteristics of the products or services are accessible, the olfactory cues are likely to be competed and impair the effects. (Bone & Ellen, 1999) Embedding relevant new information to the scent for particular product or service to keep the diagnostic effect of that scent is one possible way, but if each of sensory signals only plays the individual role of conveying the single sensory feature, the competing relationship probably would not gain synergy across senses. Since the congruity of scent with other product characteristics or environmental elements influences consumers' response to the scent, it is undisputed that the collaborative role of olfaction need to be considered in order to collectively form the brand experience with other senses (Bone & Jantrania, 1992). An important objective of sensory branding that has generally reached a consensus is to align all the brand signals into one harmonious brand expression to deliver the experience that emotionally and physically connect brand with customers (Lindstrom, 2005).

There are some good examples of companies who have made efforts in exploring sensory marketing. Scent has been used in product and ambience for enhancing the user experience. For instance, scent used in cinema to create 4 dimensional experiences for audiences. The Audi "Nose team" has designed neutral scent for every part in an Audi car, a mix that yields the famous "new car smell" ("Sensory Design," 2010). In Japan, scent is used to promote digital services. A Mobile Fragrance Communication service is announced by NTT Communications that enable users to download a "Fragrance Playlist" or files of recipes for specific smells along with visual and audio content from i-Mode's mobile website (Morrison, 2008).

Scent as a brand identity is one step beyond the experience enhancer. The most famous case is the Singapore Airlines who created a scent called Stefan Floridian Waters for use at all consumer touch-points from stewards' perfumer, aircraft interior to the hot towels distributed before meals (Lindstrom, 2005). Play-Doh and Crayon Crayons start to use product scent as brand identity in quite early age. Scents make the brands be memorable and distinctive in the same product category. In others, some brands such as Starbucks and Abercrombie & Fitch, they have developed signature fragrance for their stores and then that ambient scent improves the retail environment

and encourages the customer repeat visiting. Olfactory branding also arouses interests in Hotel industry. Westin Hotels has begun to use a signature fragrance called White Tea as an intangible advertisement that works in guests' subliminal perception (Watkins, 2006). Las Vegas hotels also created signature perfumes that diffused by ventilation system meant to build powerful scent associations to connect guests to the experience even beyond when they leave their vacation.

All the successful cases represent the huge potential for brands to benefit from olfactory marketing and branding. The Brand Sense Agency offers innovative branding tools for evaluating where the brand is on the sensory scale, from where the brand's future sensory potential can be positioned (Lindstrom, 2005). For those brands that looking for optimize their olfactory appeal, there is still a dearth of guidance for marketers to learn how to integrate the sense of smell into a brand.

3.4 GAP BETWEEN THEORETICAL RESEARCH AND MARKETING PRACTICE

The literature review process discloses a gap between the psychological studies on scent effects and the olfactory branding practices in the real world. On the one hand, a great deal of valuable knowledge on this topic has been created by the basic psychological studies, but little has been applied in the olfactory marketing practices. (Herz, 2007; Hughes & Tillotson, 2006; Zucco, 2003). For instance, Psychology research has proposed that scent can affect human behavior through altering their mood status. However, most of relevant market practices fail to capture the evidence to prove those effects by simply present a scent (Bone & Ellen, 1999). On the other hand, marketers have done some olfactory branding cases greatly based on their own experiences or assumptions which are rarely supported by the results of rigorous scientific studies.

The potential explanation for the existence of this gap may be that marketing expectation of utilizing the scent effects in marketplace lacks of the guidance support from consumer research study. In other words, a systematic guidance of what and how to design a scent for a brand to hit the target customers is absent. To bridge the gap, it is necessary to have design researcher play a role in assisting the transition from consumer research to design implementation. Therefore, the first research question emerged here is that how to design a scent that convey the core values of the brand and improve communication with the target consumers.

To give an answer to this, it is necessary to analyses the general and common scent design process in branding and discloses the aspects that may need to be improved. This becomes the focus of the next chapter's exploration studies.

4 ■ PART II: EXPLORATION

This chapter explores the potentials and possible problem in the existing scent design process and intends to understand the consumers' competence in olfactory association and expression. In the end, a synesthetic visualization approach is proposed to address the communication obstacle in consumer research.

4.1 GOALS FOR THE EXPLORATION RESEARCH

In order to answer the research question that how to design a scent that is able to convey the core values of a brand, and improve the communication with the target consumers, a deeper and comprehensive understanding of the value of scent marketing and the existing scent design process from both experts' and customers' point of view is needed.

The exploration part of this research is separated into two major studies:

1) Expert interviews and 2) Scent Association Workshops.

In the first study, two expert interviews were conducted

- To disclose the possible problems of presenting scent in the market place and find the potential solutions based on the understanding of the current condition of scent marketing.
- To summarize the typical processes of scent design in olfactory branding projects and identify the neglected sectors in these processes.
- To explore the future opportunities for olfactory branding.

The second study is Scent Association Workshops, which consisted of a focus group and a scent association test. It is intended

- To acquire a comprehensive understanding of how people perceive scents, imagine scents, and generate scent association and how they express the smell experience;
- To explore the possibilities to concretize the expressions and obtain insights for designing olfactory branding strategy.

4.2 STUDY 1: DISCOVER THE POTENTIALS IN EXISTING SCENT DESIGN PROCESS

4.2.1 Expert Interviews

The basic information of the companies and organizations that specialise in the scent-related product development was gathered initially through the Internet in order to seek out potential interviewees (i.e. experts who had been working in the scent industry with respect to scent research, development and marketing). These companies were then sorted into four main categories: 1) commercial scent solutions providers (e.g. SCENTAIR, AIR AROMA, etc.), 2) scent diffusion equipment manufacturers and technology developers (e.g. Air Essentials, AromaJet, DigiScents, etc.), scent creators (e.g. DEMETER Fragrance Library, SixScents, etc.) and 4) olfactory research and development organizations (e.g. IFF, Tolaas Studio, Scent Marketing Institute, etc.). I contacted several experts from those organizations through email, and two organizations consented to participate in this study.

The first one was the Scent Library Shanghai. It was formerly a sales and service agency of the DEMETER fragrance library, which is a New York based scent-creating company and considered to be the first one that started creating single-note fragrances drawn from memory and experiences of everyday life.

The other one was the International Flavours and Fragrances (IFF), a global leader organization in the research, creation and commercialization of scents, flavours and fragrances. IFF and its predecessor companies have been in the flavour and fragrance business since 1833.

These two organizations were chosen because IFF has the most advanced technologies and well-developed research and development system, which represent the industry benchmark in providing scent solutions mainly in Business-to-Business model. Meanwhile, Scent Library Shanghai is a company serves both Business-to-Customers and Business-to-Business clients. It has international background but targets at the Chinese market specifically. Thus, it can provide me with a particular perspective on culture related scent marketing. In addition, Scent Library Shanghai also provided supports (e.g. sample scents for the association test, experience room for sensory experience prototyping test, etc.) for the scent association workshop and collaborated with me in the following scent development project.

experts from these two organizations were invited to participate in the interviews.

4.2.2 Data collection and Analysis

The first interview with Banny Li, the managing director of Scent Library Shanghai (See Figure 4-1), was performed in Tian Zi Fang in 2011, an experience site of Scent Library Shanghai. The scent products and other materials used to facilitate the communication in the interview were provided by Scent Library. In order to collect data for future reviewing, the interview content in the site visiting was recorded using photo camera and voice recorder. For appreciating his collaboration and support, a small size Iittala Aalto Vase was given as a present. As a continuous study, I visited the flagship store of Scent Library in Beijing two weeks later, as a normal customer. It helped me to acquire a direct experience of the scents in a real retail environment and also inspirations from a consumer's point of view.



Figure 4-1: Banny Li, managing director in the Scent Library Shanghai

The second interview with Julia Fernandez, the Creative Manager of the Olfactory Design Studio at IFF, was carried out through email since the time difference between Helsinki and New York, and also because the research background and interview questions were forwarded to Julia through a corporate communication in IFF. The communication continued after the interview in 2012.

All the answers in the interview were collected and organized into two transcripts. (See Appendix A and B)

The first expert interview was carried out in the Scent Library site, so that I could see their scent products in the showroom and smell the scents directly (See Figure 4-2). A set of research background interview questions were prepared and explained to the interviewee beforehand, so the interviewee had enough time for preparation. The interviewee was asked to introduce himself and the company as warm-up, and followed with questions about their products and services. Considering Scent Library is a B-to-C based company, interview questions were more focused on the consumer experience and smell stories from the consumers in everyday life. Since Scent Library was formerly an agency of DEMETER Fragrance Library, Banny was also asked to give opinions on the social-cultural facts that impact on the scent marketing. Meanwhile, because Scent Library had cooperated with clients from various industries on many B-to-B projects, Banny was also asked to describe the typical process as well as how he values the challenges and opportunities



Figure 4-2: Scent products and experience bottles in the Scent Library.

of the scent marketing. The follow-up visiting in Beijing flagship store was a supplement. There were more scent products showed in the flagship store, such as the scent tin, reed diffuser, flavoured toothpaste and so on from Japanese brand (e.g. Six Scent, TO THE SCENE, MARGARET JOSEFIN) and American brands (e.g. CALIFORNIA scents). After the discussions with the salesclerks there and I was introduced to try the newest scent experience developed by To THE SCENE that aimed to bring people close to a city, such as Tokyo, Paris, or London. I also talked with consumers who were in the store, collected their thoughts on the scent products and experience in Scent Library.

The purpose and process of the second expert interview with IFF was slightly different. The email interview with Julia helped me learn a lot about IFF, including their latest research findings, the developed technologies for creating scent, and approaches for obtain consumer insights and so forth. Julia was also asked to present the scent design process and give as many good examples as she can to broaden my view on this topic. The same as the first interview, cultural facts and future possibilities were discussed during the interview.

The whole data analysis process included two phases: initial open coding and focused coding. During the first phase, the interviews recordings were transcribed and coded thoroughly in order to dig ideas out of the raw data more comprehensively. The essential information was extracted and written in yellow post-its and then it was further interpreted and categorized into 8 groups and tagged with red post-its (See Figure 4-3). That provides the fundament for the focused coding phase. Then, the data was re-examined in a more focused way for identifying the possible answers to the pre-stated research questions.

4.2.3 Results

The eight groups were categorized and tagged respectively as Consumer Experience, Scent Solutions, Customers, Social and Business Value, Social-Cultural Influence, Scent Development Process, Technology and Trends, which are the fundamental elements for understanding the scent design. The analysis of data has revealed that these eight elements are connected and interactional. A visual map with the Development Process in the core is created to illustrate the relationship of the eight groups as the Figure 4-3 shows. The map presents that scent design process begins with the communication with the clients, insight into the consumers and interpreting the trends, ends with providing scent solutions to the clients to help them differentiate themselves from their competitors in the marketplace and grow the brand equity. Furthermore, Social-Cultural facts impact the trends and consumers' preference. The trends evolve with the growing awareness of the value of olfactory experience both in business and social aspects. Moreover, innovative technologies contribute in the scent research and development, and also leverage the implementation of scent solution.



Figure 4-3: Interview data was interpreted and categorized into eight groups for further analysing.

Gradually Patterned Process

The visual map provided a clearer structure for disclosing the neglected sectors in the existing scent development process. Based on that, a chart of general process, which is greatly shared by previous scent developing projects, is mapped out as Chart 4-1.

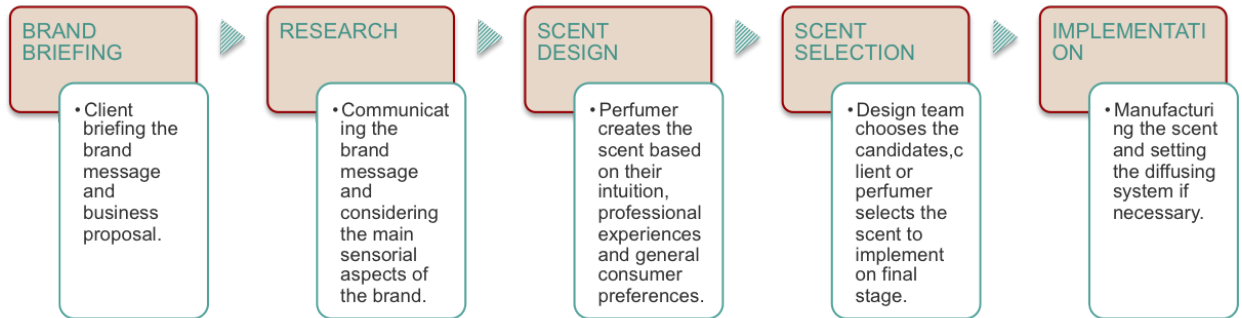


Chart 4-1: The general scent design process.

Common Request and Technical Scent Solution

Conventionally, scent solution providers serve clients mainly from food, detergents, and cosmetics industries. But a growing number of clients now from other industries have started to pay attention to scent and seeking professional scent solutions for their brands or products, such automobile brand Audi, consumer electronics brand Samsung, fashion brand Abercrombie & Fitch, real estate industry, and movie industry, etc. Nonetheless, the most common request of clients still retains to simply develop a signature fragrance to attract consumer and enrich the brand expression. As Banny said in the interview:

“Clients often ask us to create particular scents for their brands that are able to evoke certain emotions of their consumers.”

“We create the scent for our clients for their business needs, like Audi asked us to create a scent which can express the enterprising spirit. And the director of the movie ‘Under the Hawthorn Tree’ wanted to have two scents to respectively represent the leading actor and actress.”

Scent solution providers play a key role in the process of transferring the intangible thing to tangible industries. They are responsible for translating the clients' requests into the particular scent solutions and each of the scent solutions usually includes a scent and a delivery system.

"At Abercrombie & Fitch, we have re-designed the signature fragrance for A&F men to be used in a larger space, and we re-constructed the scent that is automatically spritzed from the lighting tracks by employees." (Julia Fernandez)

Scent creation and application rely on the sophisticated technology for capturing the scent molecules, scent diffusing and disposing. After implementation, experts would go to the site and exam whether the scent is fit to the initial purpose or not, and make adjustment accordingly.

"It is very different creating a scent for a 'thing' than for a 'person'. It can't be invasive, it needs sophisticated mechanisms of disposing the fragrance, and extracting it from the ambience – or it would become one saturated place – but also leading with the human natural mechanism of getting used to a fragrance." (Julia Fernandez)

Expert-driven scent creation and selection

It is widely believed that creating scent or fragrance is an artistic activity, thus the scent developing process is largely driven by the experts, which means the critical scent creation part relies mainly on the experts' intuition and experience.

"The selection of the fragrance can be done in a very 'authorial' way – the owner, or the designer chooses it, in a very instinctual basis, or test with pre-determined target, that will represent overall likeability of that fragrance for that context." (Julia Fernandez)

Banny introduced a project that they have done for a Japanese Photographer's exhibition. Scent Library designed a unique scent for each photo series to present a congruent smell conveying the meaning behind the 2D images. But the actual effects or the visitor's experiences were influenced by many other factors that are hardly controlled by the perfumers, such as the individual preferences, personal past experiences and olfactory sensibility and the surroundings. .

"...different people have different perceptions of the same smell. Because scent in the environment only pilot people, the perception of the smell is co-functioned by all the senses and also influenced by personal experiences, therefore, their reactions are different." (Banny Li)

Understanding the potential consumers

Although scent creation is a heavily expert-driven process, consumer research has been recognised as one of the most important aspects by some scent solution providers. For example, the consumer insight and marketing teams of IFF have been systematically and regularly conducting research on scent-related trends and consumer interviews. Besides, for understanding the influence of scent on individual's mood and emotional well-being, IFF has also developed a self-report method called "Mood Mapping", which can be used to measure the moods elicited by different aromas. Specifically, when measure through the "Mood Mapping" method, the panellists of the smell test would be asked to smell the aroma samples and pick the mood category that best matches each aroma sample from the mood map where eight mood categories are presented (See Figure 4-4).

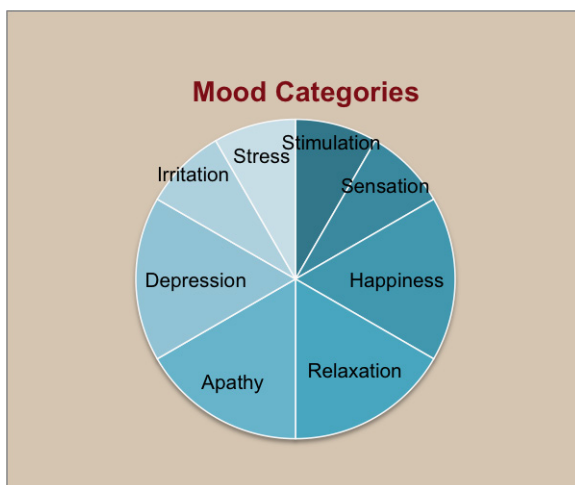


Figure 4-4: "Mood Mapping" method developed by IFF for measuring consumer's affective response to certain scents.

Comparing to IFF, Scent Library doesn't have a systematic plan for consumer research. But their experts tend to collect consumer insights in everyday communications with the consumers coming to their stores for purchasing scent products.

Difficulty in translating consumers' association to scent ideas

The consumer stories that Banny shared with me indicate that people enjoy the scent-triggered flashback. Meanwhile, it is declared that Proustian phenomenon doesn't require a special scent, since even very ordinary and common smell can arouse emotional memory, as long as people have experience associated with it. Consumers tend to have intimate bond with certain scent that they are familiar with. That also explains what Banny mentioned that generally the more unique scent, the fewer people would like to buy it.

"Customer's first experience in Scent library would be surprise to smell our scents. Because some of them are too ordinary for people to pay a special attention to it in everyday life, but they do leave deep impressions in our sub-consciousness." (Banny Li)

Banny's depiction is consistent with the findings of most scent-related psychological experiments, that is, scent perception can be seen as an unconscious encoding and decoding process. When one is exposed in a particular scent, he/she often unconsciously associates the concurrent episode with the scent and embeds it in the mind as a piece of memory. Then, when the individual encounters the same scent again sometime later, the associated episodic memory would be retrieved, which in turn would result in an emotional and meaningful experience. However, it is difficult to create such scents according to the abstract and vague descriptions provided by consumers. For example, customers often come to Scent Library to ask for a specific scent associated with someplace or someone from their own points of view. The scent experts have found that it is almost impossible to create the accurate scents that fit their descriptions because the descriptions are always stories that contain nothing about specific scent ingredients.

"Smell is mysterious, when certain smell turns out to have an intimate bond with you, it's not purely a chemical concoction, it becomes a carrier of memory, no one can tell what's in there except yourself, however, it's hard to articulate for sharing." (Banny Li)

Influence from cultural and social facts

As a Julia said, “Fragrances are an expression of what’s happening in the society.” People from different cultures have different preferences and habits of using scent. Fragrance and its delivery systems evolve with the social and cultural development, from earliest use for religious activities in the East, as medicine in Greek and later Romans discovered the pleasure attribution of scent, and utilized scented dove flying over to shower guest with fragrance. Scent preference in post-war shifted with women’s lifestyle, from conventional to super floral and opulent. While in the past years, nostalgic expression especially to the 50’s has brought Gounrmand notes back again to home fragrances. As people’s desire in well-being and natural beauty, raw materials come to the focus. These cultural and social facts impact on the consumer’s value and preferences, therefore, should be seriously considered in developing the scent. For instance, western-type perfumes that have virtually no Chinese cultural roots might not be a good option for attracting Chinese consumers.

“We had a project collaborating with an Italia furniture company, who asked us to create a scent for their trade fair in a shopping mall. We didn’t fully take their advices of using the scent notes of bakery and coffee to convey a home atmosphere, because their products is targeting the Chinese market and Chinese people are not used to baking or making coffee at home. We finally created a scent with Linden and Sandalwood notes which can better present the lifestyle of the target Chinese consumers.” (Banny Li)

Aim to achieving the positive synergy across the five senses

With regard to the future trends or the objectives of olfactory marketing, Banny and Julia both indicated that olfactory marketing is not aiming to replace the dominant role of visual or auditory stimuli in the marketplace, but rather to use the specific effects of scents that other sensory cues barely have to enrich and complete the consumer’s sensory experience.

“In exploiting the subjective, associative impact of smells in combination with visual images, it’s possible to generates a kind of meta-sensory experience that goes beyond purely seeing or smelling.” (Julia Fernandez)

Furthermore, Scent branding is not aiming to only provide each brand a signature fragrance, but to contribute to combining the five senses to provide a synergetic presentation of the brand and providing positive brand experience in a various ways.

“... is not to overwhelm the consumer with the possibility of providing a fragrance trigger on every single brand they see.” (Julia Fernandez)

“By linking an olfactory story to the overall experience, the brand is connecting emotionally with consumers in a more instinctual way.” (Julia Fernandez)

“We are expecting that marketing in the future will involve the usage of colour, form and texture combined to develop synergetic presentations, and interact all the systems we have.” (Julia Fernandez)

4.2.4 Discussion

Through the analysis of the above-mentioned visual map, I identified two aspects in the general scent creation or development process that might need to be improved as the research foci of subsequent studies: the aggrandizement of consumer participation and the synergy of five sensory stimuli (See Figure 4-5).



Figure 4-5: The dash lines indicate the two potential aspects in scent developing process.

The existing scent design and development process mainly relies on the tacit expertise of perfumers or other creative scent experts. It is true that perfumers have many years experience of creating scent, their noses are trained to be more sensitive than normal people, their professional knowledge is the key for developing scent solutions, but their experiences are limited, their ideas about scent can hardly represent the public. There are many drawbacks in such expert dominated process: First of all, the experienced know-how may restrict perfumers' thoughts out of the box. Secondly, perfumers' olfactory acuity is not representative of the general population. Perfumers are not able to tell the cultural-social influence on consumers' preference without communication and research. That means the consumers probably would not comprehensively perceive the expert-created scent as the way scent experts expect them to. The fact was also revealed from the result of a project of a Japanese Photographer's nature themed exhibition that Banny shared with me. At the same time, the existing consumer research is short of understanding consumers' perception and expectation of the brand experience, neither discovering scent with special meanings for target group. For these reasons, it is arguable that to increase consumers' input would bring new insights for the development of new innovative scent solutions.

Furthermore, as analysed in the findings, there's a common awareness in scent industry of integrating olfactory experience to achieve synergy across senses. However, it has not been embodied in any guidance of how to design the multisensory strategy that could be effectively executed. The existing scent-developing process is relatively independent, focusing on creating signature fragrance, yet with less effort on concerning crossover to achieve five senses synergy. It therefore becomes the second potential aspect that current research is intended to explore.

Aggrandizing Consumers' Input

In regards to the five phases of scent-development process, consumer insights need to be aggrandized in two phases: first in the research phase and second in the phase of scent design.

Optimize the consumer research

Market and consumer research plays an important role in the critical phase of transforming the client briefing to the scent ingredients. However, not every scent solution provider has set systematic front-end consumer research program, even the existing consumer research is more focusing on testing the consumers' general preferences for the scent ingredients, or collecting feedbacks for the finished fragrances. For instance, IFF created a database called Consumer Fragrance Thesaurus (CFT), which identified a variety of attributes of fragrance ingredients such as mood, from worldwide consumer test. An application was developed based on CFT to enable the perfumers get a fragrance profile with best combination of required attributes. For example, to create a fragrance for shampoo, olfactory designer only need to check the attributes in the application according to consumers' requirements, such as beautiful, airy, happy, floral, for hair. As a result, the application will provide the

matching fragrance list for inspiring perfumers (Warrenburg, 1999). However, the general understanding of scent personality does not provide the full answer for identify meaningful scent for particular commercial projects. Because the scent stories, which may able to elicit target consumers' positive emotion, are the hidden treasure for scent branding strategy, but are absent from any database.

Generally, the discovery of the meaningful stories that carried by certain scents requires scent-related studies under specific socio-cultural contexts. The findings or information provided by such studies can inspire perfumers what more ideas might be worth trying when creating a fragrance for a particular project. As some creative professionals in the scent industry have realized, mental associations as well as affective responses evoked by scents need to be learned for helping in brainstorming scent ideas (Warrenburg, 1999). In order to collect and understand these affective responses, researchers and perfumers need to take account of the episodic scent associations in the consumer research, because those special meanings of scents are acquired through experience in lives so that only consumers themselves could tell (Herz, 2006).

In this case, the in-depth interviews with the target consumers using scents as one stimulating tool may result in better understandings than structured psychological experiment because the purpose is not to measure the scent attributes but rather to exploit the stories associated with the scents by people. Obviously, it is impossible to exhaustively compile a database of all the scent stories for universal use. Thus, in every particular project, it would be valuable to include the studies of collecting association or stories that may inspire in scent creation. In addition, concerning the difficulties of consumer self-report, it is necessary to develop an interactive method to help consumers express their episodic scent associations. Furthermore, after collecting their associations, another practical issue that the creation team would face is how to effectively and precisely present consumers' associations so that all the members of the scent development team could easily access and utilise it afterwards. These issues will be discussed in the later sections.

The above discussion also clarifies the focus of the next study – to understand the consumers' competence of association and expression. More specifically, what kind of associations do they have both when talk about the scents without presenting as well as when they actually smell the certain scents? How do they express their olfactory imagery in the former condition and express smell experience in the later condition?

Co-create scent and sensory journey

Besides sharing scent association in the research phase to inspire olfactory designers, consumers can also contribute their ideas in scent design phase for co-constructing sensory journey that they are going to experience.

At present, a typical scent solution provided by most scent design organizations is a combination of a signature scent and a scent diffusing system for its implementation in the marketplace. However, merely concerning releasing fragrance scent in marketplace is not enough for olfactory branding. Although a generic way of presenting scent may help evoke positive responses of the consumers at some level, it may only reach the non-branded enhancement, because consumers barely can perceive the relation between the presented scent and the brand. Just like floral scent for detergent, leather scent for car interior, these scents can be applied in any similar products without bonding with a brand. According to the Brand Sense studies, the ultimate goal in sensory branding is to create a strong, positive and loyal bond between brand and consumer, and the most effective strategy there is to secure a branded enhancement, meaning create a brand association with an exclusive sensory stimulation (Lindstrom, 2005). To achieve this goal, it is crucial to have a well-planned strategy and test the experience prototype with consumers before the long-term execution (Lindstrom, 2005). A possible strategy could be firstly to identify the tone of the multi-sensory brand experience, and then in the basis of that tone, to create a brand sensory platform that is composed of sensory touch-points (e.g. materials' tactile impression, colours, signature scent, etc.). These sensory touchpoints will create the emotional links between all the product series and services provided by the brand, meanwhile form the consumers' impression of the brand.

The sensory touchpoints happens in all the interactive activities between consumers and the brand, which shapes the sensory journey that the consumers will experience. Therefore, as the subject in the sensory journey, consumers' voices need to be listened, and perspective need to be empathically taken in design the strategy.

A suitable approach for involving consumers' perspective in the sensory journey design is to ask them to participate in the experience prototype test, and contribute their ideas for designing the olfactory touchpoints. As psychology studies claimed, individual differences, socio-cultural facts, and context effects are moderators in scent perception process (Bone & Ellen, 1999). Therefore, test consumers' olfactory experience in realistic context can reveal unexpected problems thus improve the effectiveness. The co-creation approach enables experts' mind staying with consumers, obtaining immediate feedback from them. For instance, Consumers may indicate when and where they would like to smell the fragrance, and evaluate how much they like the way that scent come together with visual, auditory or other sensory stimuli.

Realizing Five Senses Synergy

As suggested in the beginning of the discussion, the other potential aspect of olfactory design for marketing or branding is to concern crossover and achieving the five-sense synergy.

Experts have realized that one of the most important trends of sensory branding is to combine five human senses and take the special advantage of the sense of smell to complete the sensory experience. However, through the interview, I found that the scent solution providers seldom strategically plan the synergy across five senses in the scent developing process and the whole scent

development process is still a rather independent and concerning little about congruency with other sensory stimuli so far. This may be attributed to the reason that most clients have not been fully aware of the advantages of great synergy across five senses. In most cases, they seek simple signature scents for their brands from the scent solution providers. Such a holdback often led to the low effectiveness of scent solutions since the effects of scent may easily be competed by the strong visual and auditory stimuli.

In reality, scents are not working in a simple way as clients wish. Olfaction is never isolated from other senses when we cognize the world. If the signature scent is considered merely an independent identity of a brand, it will not be guaranteed to play in a harmony. Sensory branding aims to allow consumers to see different dimensions of a single brand (Lindstrom, 2005). As the maestro fragrance designer Michael Papas states, the process of putting the smell into products or environment to represent a brand is much like that of composing a symphony, and olfactory signal not only work individually to convey the meaning, but also work cooperatively with other sensory signals to form the overall brand experience. Therefore, only to keep the big picture of the holistic sensory strategy in mind while developing the scent offerings would help perfumers ensure the synergy of scent solution with other sensory stimuli, which would be more likely to convey the precise core values of the brand to the consumers.

As a guidance for implementation, a method for mapping out the consumer sensory journey and multi sensory touch points will be helpful to the whole developing process. In the later sections, more details about this method are discussed. The main goal of taking this method is to instinctively, emotionally and reasonably surprise consumer in interactive activities through introducing the olfactory touchpoints.

4.3 STUDY 2: UNDERSTANDING THE CONSUMER COMPETENCE

4.3.1 Scent Association Workshops

Two scent association workshops were designated to provide the fundamental understanding of peoples' competence of scent association and expression. More specifically, what kind of association do they have both when talk about scent without presenting scents as well as when they actually smell the certain scents? How do they express their olfactory imagery and smell experiences? The workshops were intended to explore a possible approach for boosting consumers' associations and facilitating their expression, which could be used in the font-end consumer research of olfactory branding projects. Each scent association workshop consisted of two sessions – a Focus Group and a Scent Association Test. The Focus Group was meant to lead a group discussion of the participants' smell experiences in everyday life. The following Scent Association Test was conducted individually and endeavoured to understand people association of smelling certain scents and its expression without interference from others. The two workshops were conducted with two different groups of participants. Considering the issue of time and effectiveness, the number of participants in one workshop was limited to four at one time. Therefore, eight people in total participated in this study. The criteria for selecting participants were based on the gender, age, cultural and professional background. The final selection contained designer, programmer, business manager, mechanical engineer, who are from China, Finland, South Korea, and South America, with age from twenty to thirty five and an even male-female ratio.

4.3.2 Data collection and Analysis

The scent association workshops were conducted in a studio apartment. It took around two hours, including briefing and warming-up, half an hour Focus Group Discussion and eighty minutes for Scent Association Test, and the feedback session left in the end. The whole process was recorded by voice recorder, video camera and photo camera, all the data was interpreted afterwards.

In the Focus Group phase, I, as the moderator, guided the discussions around the participants' scent experience, such as how people learn scents, how scents affect people and how people value scent as identification, etc. During the discussion, the participants were asked to recall their olfactory experience and imagine some scents based on the hints provided, meanwhile, observe their expressions of the triggered association has also been a focus of this study. Detailed questions can be found in Appendix C.

During the scent association test, each participant was tested individually. While one participant smell the scent, other participants were seated in a separate room to prevent them from observing

and hearing the test. Each participant was provided the samples of eight scents that produced by DEMETER and offered by Scent Library Shanghai. Four of them were the scents extracted from objects in daily life: popcorn, bonfire, apple pie, fire-fly; the other four scents were known as brands' signature scents: Dubble Bubble bubble-gum, Johnson & Johnson baby powder, Play-Doh compound, CHUPA CHUPS watermelon-lollipop (See Figure 4-6). That was for testing whether the signature scent would arouse participants' memories of the corresponding brands.



Figure4-6: Eight scents used in the scent association test.

The scents were presented in small reagent bottles containing cotton balls inside. Each cotton ball had been added three drops of one scent and placed for 24 hours prior to the test. Each bottle was labelled with a capital letter A to H (See Figure 4-7). Participants were asked to smell the eight scents one by one in a random order and describe what they have in mind as they sniff them. They were allowed to sniff one scent as long as they wish, but

only single scent at a time, in order to minimize contamination from one scent to the next. They were also instructed to smell coffee beans between two scents to refresh their nasal passage. This is an accepted practice in the fragrance industry as I learned from Scent Library.



Figure 4-7: The eight scents were presented in reagent bottles in the scent association test.



Figure 4-8: Each participant was asked to write down the key description or association of the eight scents. (The scent name labels were provided afterwards.)

The test was meant to explore the participants' scent associations and expressions rather than test their abilities to recognize or identify the scent. So the participants were encouraged to describe whatever came to their minds and as detailed as possible. They were asked to tell what products and events they recalled, who were in those memories, where they happened, what moods or emotions they had at those moments, whether they were related to any particular brand etc. The key description or association for each scent was written down on post-it and stuck aside the scent bottle (See Figure 4-8). After each participant described one scent, I presented the tag with scent name (e.g. Label A: Bubble Gum) and the relevant pictures of what the scent from. Participants were asked to continue complement the description with the assistance of the visual cues, meanwhile, sniff again the same scent was also allowed. This was for testing whether the scent name label and visual cues would enrich the association and evoke stronger emotions. Participants' descriptions on scent and association were documented in Table 4-1.

SCENT	DESCRIPTION	ASSOCIATION	COMPLEMENTARY ASSOCIATION WHEN VISUAL CUES PROVIDED
A. Bubble Gum	Fruit, candy, kid's lotion, toothpaste, medicine, colourful aromatic beads , new shoes, colourful popping candy	<ul style="list-style-type: none"> - Party, often used in early age, someone had heatstroke in the summer; so familiar smell reminds me childhood. - A picture of the class-room in primary school - Tennis camp in summer 	<ul style="list-style-type: none"> - "Yes, I can smell the rubber...1 coin change into 1 bubble gum. This is my routine after school. Buy bubble gum with stickers in the packaging. Kids love it and the sticker usually also has bubble gum smell." - Share the bubble gum with my mom and my sister, divide the big one in three parts.
B. Baby Powder	Shower room , facial cream, soap, water-colour paints, irritant herbal essence, mint lip balm	<ul style="list-style-type: none"> - After shower - Some TV advertisement of facial cream. - A normal supermarket that sells cheap household products. - Cool essence oil, transparent liquid which I used in summer 	<ul style="list-style-type: none"> - Scatter the baby powder and start draw and write on the floor. - The smell doesn't have any warmth feeling in sense of touch that it supposed to have, baby powder should be like touching my mum. - Don't have any memories with baby-powder.
C. Apple Pie	<ul style="list-style-type: none"> - Candle, artificial decoration, sitting room, steam bread, Christmas tree, grape candy, postcard, bubble gum - "Very familiar, so glad to smell it again." 	<ul style="list-style-type: none"> - Office in some festival days, - mom call me to buy five steam bread; - Shopping mall which was filled with jollification; - Xmas tree with lots of decoration; - TaTa bubble gum roll with pink package, also the TV advertisement in early age. 	<ul style="list-style-type: none"> - I just have chance to taste the real apple pie after I came abroad - No, its not apple pie - Can't remember any memories with apple pie. We made different desserts.
D. Bonfire	Dirt, disinfectant, injection room, alcohol, smock, iodine, dark brown Formalin, wet, cold	<ul style="list-style-type: none"> - In the Hospital, dirty room - I suddenly recall the garage of my grandma's home, there's a bicycle and a wooden cabinet, and the smell is strong in rainy day. - I see myself lying in dental hospital waiting for tooth treatment - Back yard. 	<ul style="list-style-type: none"> - "Yes, I can feel the wood burning smell." - "I can smell the dry wood, but also disinfecting water" - Making fires with my friends. Exploring the forests. Being damp from crawling around on the forest floors playing hide and seek. Light summer rain." - In Army. Being cold. Dark. Tired. Not having to run anywhere just then (so in a way relaxing), but being a bit tense, waiting for the instance when you have to leave the relative warmth and comfort of the fire into the darkness. - Barbeque with tall and beautiful bon-fire.

E. Popcorn	<p>Cake, very sweet, western dessert, soft, corn, dressing on the ice-cream, ash, Pork Bones Soup, sweet potato,</p>	<p>Some public restaurant like café, not often smelled at home.</p> <ul style="list-style-type: none"> - Walking in the PENTIK shop - Old and dusty temple 	<ul style="list-style-type: none"> - “Yes, this the original popcorn smell, not with so much cream/butter or sugar! Which only exist in my childhood. You can only buy it from street vendor rather in cinema. “ - “No, I can’t smell the sweet taste” - “Popcorn aroma is very iconic smell, but this one seems not exactly the same one.” - Movie theatres.
F. Fire-fly	<p>Grass, lawn after mowing, watering cart, lady, green apple, forest, wood rot</p>	<ul style="list-style-type: none"> - Walking on the lawn after rain when I was in University - An elegant lady walking in the forest - Mouldy wood full of insects, - Old traditions 	<ul style="list-style-type: none"> - “That only reminds me some fairy-tale episodes. Because I haven’t really see firefly in my life.” - “Yes I can smell insects living environment but I don’t have much chance to see fireflies in my hometown.”
G. Play-Doh	<p>-Marshmallow, dessert, ice-cream, candy, creamy eraser, -“So sweet!” -Vanishing cream</p>	<ul style="list-style-type: none"> - Supermarket, quite often to smell when I come to Finland.” -Colourfull! - Cutting eraser at primary school. -Vanishing cream that contained in a pink package and smells tasty. - Sitting at a table, playing as a child. - A cabinet filled with toys 	<ul style="list-style-type: none"> - “I only play play-don, because I hate other clay.” - It smells tasty, looks tasty, but not eatable. (Sighing) - Somewhat unpleasant smell. Makes you want to wash your hands afterwards.
H. Water-melon Lollipop	<p>-Fruit candy, bubble gum, watermelon ice-lolly, watermelon candy -“So familiar, good smell, but can’t remember...” -“It’s green and red...very familiar, want to taste it.” -Run at my mouth</p>	<p>-Watermelon flavoured ice-lolly, red triangle shape.</p>	<ul style="list-style-type: none"> -“We have a kind of watermelon ice-cream bar. People in my age all love it! That’s why I can remember it immediately even it’s been over 10 years since last time I tasted it. “ -“Yes! It gives me a pleasant surprise!” (Chinese participant) - “I’ve ever eaten a watermelon lollipop.” (Finnish Participant)

Table 4-1: Participants’ description and association about the eight scents.

4.3.3 Results

In the study 2, some results are found as expected. First of all, the Prounstian phenomenon is ubiquitous. Everyone in the Focus Group Discussions admitted that he or she had experience of flash back evoked by a certain scent and claimed that such experience usually brings strong emotion, mostly positive, although it only stays for a split second. Secondly, people recall a scent and get to realize that they knew the scent at some past time, from somewhere, when being exposed to it again. Otherwise they seldom pay special attention to memorize scents. Thirdly, cultural background, growth environment and lifestyle habits dominate people's perception and preference for scents. For instance, the participants who were from harbour cities showed a special fondness for the fishy smell while those who were from inland China felt it unaccustomed. Another example from the Scent Association Tests is that the participants from Asia were very familiar and excited about the scent of Watermelon Lollipop, but the participants from Finland associated nothing special with this smell. One of the reasons for such phenomenon might be that this flavoured lollipop and ice lolly used to be very popular in Asia one decade ago, but it has never been a common flavour in Finland as participants explained. And there is a tendency for participants who were closer to nature to have a deeper impression of the natural smells, such as pine resin or fresh cut grass, while the participants living in the city were apt to form the attachment with unnatural smells, such as the smells of books or coffee. This could also be considered an evidence for the assessment that scent preference is learnt from postnatal experiences. Fourthly, people learn new scent under subconscious, as one participant explained, "I never particularly memorize exactly when I acquired new scent, but if I smell that again afterwards, I will have flashback to the scene of former moment."

Besides these anticipated findings, there are some inspiring findings with respect to people's competence of scent association and expression that worth analysis in depth.

- **COMPETENCE OF ASSOCIATION**

- 1. Associated memories are most about one's first-time experiences, especially during the childhood and major transitional periods of life**

In the focus group discussions, most participants talked about smell experience that happened in their childhood when they were asked to describe the most impressive smell in their memories. Similar results were also observed in the scent association tests, most memories of the eight scents triggered were those happened in the participants' young age. For example, one participant said "every time by smelling a fig I remember the kindergarten, where it used to be a fig tree. I remember taking the figs and putting them into my pocket." When participants smelling Bubble Gum scent, most of them recalled childhood and one participant associated "a picture of the classroom in primary school". This result can be explained by previous finding from psychology study that

people acquire the emotional meaning of scents through experiences in life. This is why childhood, a time replete with first experiences, is a pivotal training ground for scent learning (Herz, 2006).

When analysing participants' scent associations, except the childhood experience, I found people tend to learn new scents in the major transitional periods of their lives, during which the first-time experiences occur heavily and the scents associated with the new experiences are encoded at the same time. Therefore, when they encounter certain scent sometime later, an association of the previous first-time experience in a special period would be retrieved. For example, A Chinese participant talked about sauna smell is the most impressive smell for her in recent years since she moved to Helsinki five years ago. Another participant mentioned a rare paint smell he first smelled at professors' studio gave him a strong impression. It happened when he got into the university, the first time leaving his hometown for another city for a long-term. Furthermore, A Finnish participant recalled the memory of army life when he smelled the scent of Bonfire. One participant who studied in London for two years said, "There's a special smell in Heathrow Airport. Every time when I get off the aircraft, walking to the airport, even haven't gotten into the lobby, I have smelled the scent that particularly belongs to this place. Even if I close my eyes I know I am in London now." Other participants in the focus group also mentioned they had strong impression of the smell of airport. If we regard airport as a place where the new experience journey starts, then it might be also the place where the scent learning system is activated automatically.

2. Impressive scent memory and association are formed from intimate and repetitive activities.

When the focus group discussions came to the impressive smell related to particular places or persons, participants tended to recall people they loved and the scents from the places relevant to them. The intimate relationship usually accompanies with pleasant memories that last longer than usual.

"My grandma has a special smell, I don't know how to describe that kind of 'old lady smell'. It brings warmth and peace. The smell may mix the smell from books and sandalwood because she likes staying in the study everyday. "

"I like playing between and climbing on hay bales in the summer time at my grandfather's old house, has a distinct smell. I haven't thought about that for a long time though. Just thought of it now that you asked about smells."

"When I was a kid, I slept in mosquito net in summer, which smells very intimate for me still. I was missing the feeling of safety after my family moved out to a new flat."

"I think the smell that impressed me more was the perfume that worn by the guy who I fell in love with for the first time. When I smell it again, I remember the feeling of being in love."

The repetition of smelling the same scent forms the strong association that cannot be replaced even after they stop doing that activities or seeing the scenes for a long time. For example, in the focus groups, most participants mentioned the scent-associated memories were what they used to do or see frequently. These scents are overlooked in most time, but can be very powerful when they appear and evoke the associations with wonderful memories. For instance, when smell the Play-Doh scent, one participant said “it smells so familiar for me”, and she associated a cabinet full of toys. When she was told it is the smell of Play-Doh, she talked about her childhood life and said, “I spent a large portion of my childhood in that cabinet. If my friends came to visit me at home, they always knew where to find me. And yes, I’m sure I had a set of Play-Doh in that cabinet, the plasticine smell in the air might be mixed with plastic or wood scents from other toys. I was immersed in that smell everyday.”

Another participant mentioned, “I always have flashback when I smell toluene. We used to glue plastic to make mock ups at the design school in Buenos Aires. We knew it was quite toxic but it was the only way. It reminds me of the long days and night working on the mock ups.”

3. Congruent visual cue boost association and imagination

When certain olfactory stimuli were not familiar by some participants, they indicated that there was no special association came to their minds. But one finding of interest is that labels and visual cues played certain roles in triggering memory and were serving as a catalyst to boost participants’ association to different extent. First of all, both labels and visual cues influence the judgment of familiarity. When the participants saw the label or pictures, they could quickly give responses to estimate whether it is match with their perception or not. If the cues are congruent with their early perception of scent, their reaction seemed to be surer about their familiarity with the scent, vice versa. Apparently, congruent sensory information raised their positive emotion and even encouraged them to keep exploiting what the scent can evoke. Take an example, when one participant was sniffing the Popcorn scent, he indicated that he is familiar with it, but could not identify it clearly, but he kept guessing “is it a kind of cake? Sweet potato? “. After unveiled the secret, he looked excited, “Yes, it is popcorn, and must be original taste, not with much cream, neither butter nor sugar! Which only existed in my childhood. You could only buy it from the street vendors rather in cinemas.”(Some Asian market sells flavoured popcorn.)

Furthermore, label and visual cue boost scent association at different levels when both of them are congruent. By showing the label, the participants barely had more add-on association, even many participants were not able to imagine the exact smell as indicated on the label without sniff that scent again, this result offers compelling evidence in favour of the assertion that olfactory imagery through words or verbal description is not easy to obtain. On the other hand, participants spontaneously talked more stories about the scent when they saw the pictures (visual cue), which might result from positive emotion as mentioned earlier. The emotional leverage is more endearing to the participants especially when past experiences are no longer recoverable.

More heuristically, visual cues boosted their imagination relevant to that scent. And those

imaginations might be derived from their knowledge gained from books, movies or photos. For instance, when smelling Fire-flyer scent in the test, except several participants indicated “a feeling in the insects living environment”, “green apple”, or “summer”, others feel difficult to describe the association, “it arouses more about feeling than an actual view” as someone explained. But when showing the visual cue meanwhile the participants were allowed to smell the scent again, one participant responded, “The smell gives me a feeling of in the fairy-tale. Although I have never really seen fireflies in my life, but now I have an image of field with fireflies nearby, like a scene from Hayao Miyazaki’s anime feature films.”

In addition, I found that incongruent picture or label had a deleterious effect on evoking more episodic associations.

4. Associate personality with scent

The participants of the focus groups were asked to choose certain scents to represent themselves and the result reveals an interesting point: people are not trying to blend several scents to represent the overall image of themselves, their interests often focus on choosing one scent to project the special characteristics they have, or the personality, hobby, style, dream they would like to show. For example, a female participant who likes collecting leather goods – purse, bag, jackets, accessories and product cases made from leather – chose leather smell as her signature scent to represent her interests and attitude to life. Some participants chose memorable smells from living environment, such as “eucalyptus tree”, “shells”, or “smell of pine forest at the seaside”, etc., whereas others defined their lifestyles by the smells of “newly split lemon”, “Chocolate”, “Wine”, “coffee”, etc.

The chosen scents ingredients are more vivid than the general description of “light smell” or “sweet smell”, because participant shares a touching story behind each scent. Listeners who have not been experienced those stories can also understand the connection between the scent and the person.

5. Brand’s signature scent often evokes autobiographical memories which contain product attributes, yet brand information

One of the purposes of the scent association tests was to test whether the signature scent of a brand can ensure the consumer associate the brand information by smell the scent. The study doesn’t obtain many supportive evidences. Four brand’s related signature scent – Play-Doh compound, Johnson & Johnson Baby Powder, Double Bubble Bubble-gum and CHUPA CHUPS watermelon-lollipop, none of them evoked general information of brands, but rather autobiographical memories that tied to the product attributes.

On the other hand, one participant mentioned he is able to link the Coca-Cola flavour, bottle shapes and sound with the Coca-Cola brand. A possible explanation may be the special drinking experience differentiates the brand information from brands of that kind. Every time drinking Coca-Cola is an brand-encoding process for its consumers: seeing the brand colour, grabbing the

classic bottle, hearing the sound of Coca Cola whooshing open and being poured in the glass, smell and taste the distinct flavour. The signature colour, shape, sound, smell, taste forms the holistic associations with the Coca-Cola brand. It may reveal the fact that the consumers remember the brand through a multi-sensory experience. Therefore, if we want to capture the effect of signature scent on association with brand information, other sensory factors consisted in the consumer experience need to be designed correspondingly. The synergy across all the senses encodes the distinct brand experience in consumers' memory, which will result in the association with brand information in the retrieve stage when consumers exposed in the signature scent again.

- **(IN)COMPETENCE OF EXPRESSION**

- 1. Scent naming is difficult**

In the scent association tests, the participants were asked to describe the scent and what they associated. It turned out that all the participants were struggling to identify the perceived scent and unable to name it, except the Watermelon Lollipop case. The participants tended to emotionally describe the familiarity, intensity, and synesthetic perception of the scent in their episodic memory instead of directly producing the names of those scents.

As an assertion claimed that the scent naming process relies on the formation of associative links between the perceptual (scent representation) and information stored in semantic memory (scent name). And the reason of poor performance at scent identification concluded as “unstable access to semantic information” (Cain, de Wijk, Lulejian, Schiet, & See, 1998; Davis, 1975, 1977; Stevenson & Case, 2005a) This perspective can support the findings from the smell of Watermelon Lollipop in the association tests. In that case, Asian participants can finally identify the exact name of the scent after trying to recall for a while. The possible explanation may be the iconic watermelon flavour has impressed Asian people significantly in their paired-associate learning period that presumably built strong tie between scent perception and name association. Therefore enables them to access to semantic information when they tried to associate.

Therefore, it is important to encode the branded scent name in consumers' early interaction with the signature scent. That will enable the accessibility of the semantic knowledge so that consumers could recall the scent name when they are exposed to the same scent again. In addition, the name label can influence the consumers' judgement of familiarity, make them more and more familiar with the brand's signature scent and ultimately enhance the brand association with the scent.

2. Multi-sensory association causes synesthetic expression

It is interesting to see the participants tended to describe the perceived scent by using words that normally describe visual, taste or tactile impression. The participants in the scent association tests described the scents in colour and shapes: Bubble Gum smells “colourful”, Lollipop smells “red and green” and “triangle shaped ice-lolly”, Fire-fly smells like “green apple”. Attributes in gustatory and tactile senses are also mentioned: Lollipop is “fruity”, “run at my mouth”, and Popcorn smells “sweet” and “soft”. The synesthetic expressions not only appeared when the participants were responding to the presented scents, but also existed when they expressed their memories of the scents. For example, when we were talking about the feeling of certain scent brings, one participant said, “summer and winter have different smells. Summer smells fresh especially after rain, while winter smells cold.” Another participant said the Play-Doh scent “makes me want to wash my hands”.

When asking them how they feel the scent attributes like colour, warm or cool, wet or dry, sweet or bitter, and so on. Their answers showed synaesthesia produced by subconscious mind. The participants actually did not notice those attributes were beyond olfaction domain, and spoke out promptly without thinking. That indicates synaesthesia is a very natural capability among people, which even causes no awareness when it happens. Some participants explained that it might be because the scent memories are connected with the previous experiences, which are usually composed of multiple senses: what they saw, heard, smelled, touched and tasted. In addition, some participants claimed that they usually have synesthetic associations and form visual scene before identify the scent percept. For instance, when sniffing the smell of Bubble Gum, one participant said,

“It reminds me of a picture of colourful aromatic beads I used to containing in my pencil box at primary school.”

The multi-sensory experiences may be the main reason for the synaesthesia and influence peoples’ perception of scent. If the autobiographic memory contains unique sensory experience related to certain scent, it may evoke the other sensory attributes that irrelevant or even contradictory to the inherent attributes of the scent. For example, one participant describes the Bonfire scent brings the feeling of being cold and dark. It may be the opposite response it supposed to be, but when he saw the picture of bonfire, he starts to tell the experience when he was in the army.

“I was tired and cold, not having to run anywhere just then, in a way relaxing, but being a bit tense, waiting for the instance when you have to leave the relative warmth and comfort of the fire into the darkness.”

3. Expression can be enhanced when discuss with people who was activated by the common emotional responses.

When someone's association arouses affective responses, his or her emotional expression could activate other ones' emotional responses. It does not necessarily require people to have common experiences or collective memories, but only if the scent triggers emotional resonance among people.

One Chinese participant talked the negative association she has with the floral air refresher. Because in her memory, the strong floral air refresher was always used in the toilets of KFC and MacDonald in order to cover the terrible odours but it often ended up in creating aeven more nauseating smell. At that point, not only Chinese participants who had smelled that toilet odour responded to her association, others who had not experienced that kind of toilet smell but understood the poor usage of scent, such as using strong perfumer to cover body odour, also shared their comments. Then the atmosphere was activated dramatically. Participants started to tell their own stories around this topic until everyone expressed their understanding of the scent association. This kind of group discussion can effectively enhance the personal expression of scent association meanwhile enrich the story that behind the certain scent, which is a method that can be adopted in consumer research.

4.4 DISCUSSION AND DESIGN INSPIRATIONS

The findings of the expert interviews uncovered one of the most important issues that needs to be improved in the consumer research, that is, the communication obstacle between the consumers and olfactory research and design experts. In this case, the findings derived from the exploration to the consumers' competence may provide some potential solutions for the problem.

Well-documented evidences suggest that language and olfaction are poorly interconnected (Stevenson & Case, 2005b). In the current study, likewise, participants in the workshop frequently reported the difficulties in evoking scent images through language cues and expressing the scent perception through verbal description. It reveals the gap between olfaction and language (See Figure 4-9), which eventually results in the barrier of communication in consumer research. The consequential question emerged here is t how to bridge the gap by developing an approach to facilitate the olfactory imagery evocation and help consumer express the perception and association of scent.

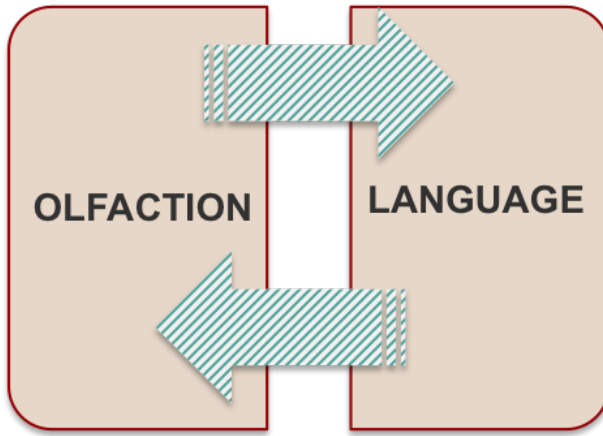


Figure 4-9: The gap between olfaction and language manifests the difficulties in articulation and olfactory imagery.

Approach for communication: synesthetic visualization as a medium to bridge the gap between olfactory perception/association and language expression

The scent association workshops demonstrated the synaesthesia exists when people expressing the scent experience. Since synesthetic association enables people to have visual image, it is inspiring that synaesthesia visualization may act as a significant medium to assist peoples' expression and ultimately fill the olfaction-language gap. As illustrated in Figure 4-10, the gap can be filled by taking advantage of consumers' abilities of synaesthesia, visual story telling and visual imagery. Specifically, this assumptive approach is analysed from four aspects of consumers' competence that were interweaved to realize the communication.

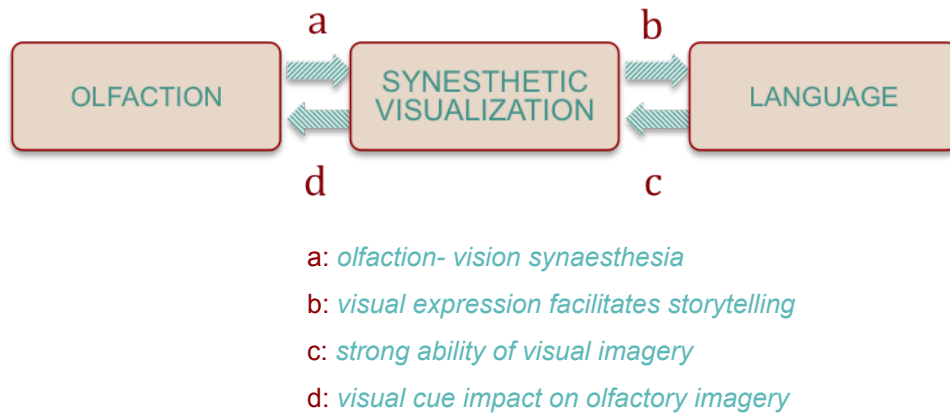


Figure 4-10: Synesthetic visualization as mediate approach to bridge the gap

a. Olfaction-vision synaesthesia enables visualization

People learn the world through nose everyday. Since the ubiquitous olfaction- vision synaesthesia exists commonly in the consumers' expressions, it is reasonable to use photo collage or other visual expression to describe the scent-triggered association that in consumers' mind.

b. Visual expression facilitates storytelling

Visual storytelling is certainly not anything new, as communicating through pictures pre-dates even the written language. Now visual storytelling has been widely realized that visual expression can enhance the verbal or written story. Through the visual storytelling, the smell experience or association would be better communicated.

c. Strong ability of visual imagery

Verbal description usually leads people to imagine a visual representation in their minds. Different measurement techniques have yielded the same pattern of findings, that is, olfaction was the sense in which the fewest people reported frequent imagery and pictures and images are relatively easier for people to imagine (Lawless, 1997). In Brower's experiment, the participants were asked to imagine the sight, sound, and smell of frying onions and the results showed that 57% of the participants were unable to imagine the scene's smell, in comparison with only 3% unable to visualize.

d. Visual cue impact on olfactory imagery

As discussed before that it is easier for people to imagine scent when visual cue is presented comparing only with verbal description. There was an experiment conducted by Engen (1973)Ss indicated which of 21 pairs of odors had been in the original group of 48 odors at presentation-test intervals of up to 1 mo. Exp II (n = 68 in which 3 participants were asked to identify when an odor was present or absent using a signal-detection paradigm. The addition of color to blank stimuli increased the false-alarm rate, which indicates visual stimuli misled participants into judging an odor to be present when in fact it was absent. That also suggests visual cue enhanced the olfactory imagery.

In addition, visual cues, especially colors, may affect participants' identification when it is presented discretely alongside the stimulus. Davis's study (1981) in which participants were asked to identify scents either alone, with a colored chip, or with a color's name (i.e., red). Results show that color facilitated identification if it was relevant, whereas irrelevant colors increased incorrect identifications.

This approach of introducing the visual expression as a medium to help consumers express their perception of certain scents and enable them to associate or imagine the olfactory experience based on the information from language description. It provides a fundament for optimizing the consumer research at the onset of scent design process.

Considering different forms of scent in planning olfactory touchpoints

One controversial issue I found after the association test is that all the signature scents I used in the test were product scent, and the test of effects of ambient scents is missing in the study.

Product scents usually play a role in the using stage. For example, the special scent of Play-Doh enhances user's olfactory experience in the whole playing process and such olfactory experience repeats with the continuous use and then it is meaningful memories. However it is not presented in the shopping stage.

Meanwhile, some brands like Abercrombie & Fitch use the signature scent as ambient scent, which can only be perceived during the shopping stage, the scent on the clothes will be gone after wash, so olfactory touchpoints in usage is not followed up.

Although ambient signature scent is missing in exploring scent effect in this study, the function of ambient scent should keep in consideration. As I analysed in the previous chapter of literature review, scent as product scent or ambient scent has different effects on the formation of consumer's memory of product and brand information. The strategy of applying scent in promotion, in shopping and in using stages are all need to be taken into account in order to form a holistic brand experience. But it is a question that whether only combines different forms of scent in consumer

journey can form a holistic olfactory experience. Since the scent applications greatly depend on the specific case, and have lots of potentials undiscovered, this topic could be valuable for future research.

5

■ PART III: CONSTRUCTION

In this chapter, an optimized olfactory design process is proposed based on the findings from literature review and explorative studies. The process was implemented in a real design project-“ON THE ROAD”.

The last chapter analyses the general and common scent design process and discloses the aspects that may need to be improved to achieve a better branding purpose. The findings from the interviews reveal one of the most notable aspects, that is, the difficulty in translating consumer insights into scent ideas and this could be attributed to the communication obstacle in consumer research. Because of this issue, the second study focuses on trying to understand the consumers' competence in scent associations and expressions. The findings of it suggest that the vision-olfaction synesthesia might be successfully used to develop a method to bridge the gap between olfaction and verbal language, and ultimately transfer the consumers' knowledge or stories to valuable scent design ideas. Consequently, the current chapter is intended to optimize the olfactory design process based on the insights gained from previous studies and test it through a real-life project – designing olfactory branding strategy for a new shoes brand “ON THE ROAD”.

5.1 OPTIMIZING THE OLFACTORY DESIGN PROCESS

One of the found drawbacks of the widely deployed isolated scent design process is that the other senses are usually not considered along with the olfaction and this could be considered the one of the main reasons for the failure of many scent design outcomes which cannot create the positive synergy across the different senses.

In his book, Lindstrom (2005) suggests a six-step process based on a systematic study into a series successful sensory branding cases around the world (See Chart 5-1). This process may provide a general framework for optimizing and integrating the scent design as a part of the holistic sensory branding process. The six-step process starts with (1. Sensory Audit) to evaluate the brand from sensory point of view in order to leverage existing sensory touch points by examining the synergy across sensory touch points, sensory consistency, sensory authenticity and securing positive sensory ownership. At the next step (2 Brand Staging), sensory benchmarking with the focus to all the industries, brands that have accomplished outstanding sensory progress in five senses is identified. (3. Brand Dramatization) Then, it continues with to clarify the personality of the brand that reflects its core values and identify the priorities of each sense and then create a synergy between them. After that, (4. Brand Signature) sensory branding designers create a unique statement of the

brand through designing each sensory component to form a complete branded sensory experience and (5. Implementation) develop a step-by-step implementation report of multi-sensory branding strategy for R&D, retails and operations departments. At the last step (6. Evaluation), the sensory performance and the revised sensory brand are critically measured and evaluated.



Chart 5-1: six sensory branding steps developed by the Brand sense study. Each step is interacted to ensure sensory synergy occurs during the development process.

The olfactory design process most likely starts at the third step-Brand Dramatization, when olfactory element is required as a result from sensory audit and brand staging done by the company. However, in many cases, especially for some start-ups who often only have a blur concept of what product or service they want to provide or a new technology. Then the olfactory design process requires starting from the very beginning of the brand values analysis and benchmarking from sensory perspectives.

In the Brand Dramatization phase, olfactory appeal, as one sensory channel to represent the personalities of the brand, will need to find its own position in the whole sensory branding strategy, be a leading or supporting role. Then the process proceeds to the main phase of design. Again, the focus is not only about creating a signature scent, but rather to think what olfactory experience should be integrated in the holistic sensory experience.

Below, the optimized process will be introduced as three phases: 1) exploration, 2) scent design and 3) evaluation and implementation, with seven steps in total (See Chart 5-2). This optimized scent design process can be integrated into the Lindstrom's six-step overall sensory branding process mentioned above.

There are some key points listed below as responding to the potentials in the existing consumer research and scent design phases as mentioned in the last chapter. Firstly, using innovated approach of synesthetic visualization to facilitate the communication between olfactory design experts and target customers in front-end exploration; secondly, designing associative scent embed a brand story which can be somehow reflected to customers' own experience; thirdly, mapping out olfactory touch-points in consumers' sensory journey, including the stages of before shopping, on-the-spot, in-use.

The optimized olfactory design process depicted below is meant to provide the answer to the research question of how to construct the olfactory experience to represent the brand core values and eventually enhance the brand-customer relationship in a long term. The developed process is expected to be a powerful tool to help companies access the synergic strategy of olfactory branding.

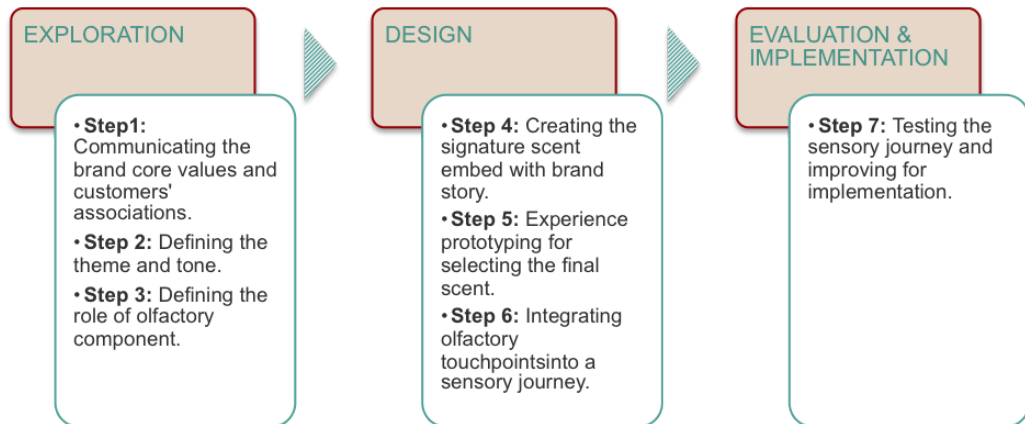


Chart 5-2: Optimized olfactory design process with three phases and seven steps.

Phase 1: Exploration

Step 1: communicate the brand core values and discover customers' association

In the phase of front-end exploration, olfactory design experts need to communicate the brand message with the target consumers and trying to understand consumers' thoughts through cultural lens. Besides, another important mission missing in the existing consumer research is the exploration towards the consumers' associations that are relevant to the brand core values. From their associations, olfactory design experts can discover shared experiences and emotional stories among target customers, as well as cultural and social impacts on their memories in their transition periods of life. This exploration provides more inspirations for creating the signature scent. Since different cases have their own particularities and characteristics, they should be explored case by case under the guidance of a systematic method.

In the previous chapter, the communication approach of synesthetic visualization is proposed trying to solve the problem in consumer research. Regarding to some scent branding projects, applying this approach would be most likely to facilitate the transition from brand briefing to associated scent ingredients. As illustrated in the Figure 5-1, we can practice the approach from two ways: 1) to visualize the brand associated scene by visual imagery, the visual cues will facilitate the olfactory imagery to obtain the scent with story embedded; 2) to help consumers to express

the scent perception, so that scent expert could know whether the consumers' perception or expectation matches the initial purpose. The former one can be applied in step 1, while the latter one will be explained in step 5.

When communicating the brand message and core values with target consumers for eliciting their olfactory imagery, researchers may first ask them to visualize their brand associations, and then ask consumers keep associate the olfactory experience related to that visual scene, and finally extract scent elements from the created visual scene and consumers' olfactory imagery. The consumers may associate the brand core values with some episodic memories of their lived pasts or experiences and imaginations based on learned knowledge (e.g. information learned from TV, books or movies). These associations can be expressed through collage and visual story telling. With customers' contribution, olfactory design experts may develop a visual scene derive elements from consumers' collage. The visual scene may be in forms of mood board, story board and so on, which will tell an emotional story which projects consumers' values and attitudes toward life as well as cultural and social characteristics. To some extent, this visual scene provides a reference for experts to define the theme and tone of the whole sensory experience.



Figure 5-1: The approach of Synesthetic Visualization applied in front-end exploration.

Step 2: Define the theme and tone of the whole sensory experience

The visual scene created in the first step provides the fundamental and understandable information about target customers, their perception, association and expectation at some point. This will be used for defining and refining the theme and tone of the whole sensory experience in the second step. If see olfactory appeal is one role in branding dramatization, it will be more reasonable to have the theme and the tone as a guidance for designing the signature scent. In addition, the initial studies on brand core values, product characteristics, design DNA, cultural background need to be all taken into account.

Step 3: Declare the role of olfactory component

Having the theme and tones and going to structure the sensory experience for the brand, it is necessary to answer these questions. Which senses need to be included in? If the olfaction is a required sense, what is the role of it, a leading or a supporting role? What kind of effect it is supposed to achieve? How would it leverage the perception of the brand? Every touch point with olfactory component integrated in should be converted into a concrete experience. The goal is to build strong emotional ties between product and consumer (Lindstrom, 2005).

Phase 2: Design

Step 4: Create the signature scent with the brand story embedded

All the early steps are preparation work for creating scent solution. The preparation makes the scent design process more informed and directed than the common intuition and experience based scent design, because it now has rationale and foundations to ground on. The final visual scene with theme and tone that synthesized from give olfactory designers a concept of what to create or at least a direction of where to go.

Besides, current studies have proved that signature scent which merely presents the product feature or enhance people's pleasure, would barely result in scent memory associated with brand information, and most fail to effectively draw closer to consumers since consumers are consciously defending sales promotion methods. Like one participant in the study said,

"I know aroma released in some stores is to attract my attention, but it is seen through and fails to lead me into a trap."

Therefore, a brand story needs to be depicted and integrated in the scent in the scent design phase. The scent ingredients should be common and recognizable, which may strike a responsive chord in the hearts of consumers, so that allow them to associate their own experiences with assistants given by visual or auditory cues.

Step 5: Prototyping the environment with multi-sensory stimuli and selecting the final scent solution

As we known, the existing scent selection work is done by perfumer in a very instinctual basis. Even if including a selection test with a pre-determined target, their evaluation will only represent overall likeability of that scent. But as we know, all the surroundings and other sensory cues have impact on people's perception of scent. So here I suggest positioning the selection activity in the multi-sensory environment, which reflects the theme and tones that settled in early stage. People choosing scent usually based on personal preference, the criteria for making the decision is simply "like or dislike". It is completely no problem for them to choose a perfume for themselves, but it may not convincing for a brand to choose a scent that intends to convey a brand story in the same way. So the selection criteria may need to add a condition, to test if the scent is able to trigger associations that match the theme. For achieving this, it is better to prototype a multi-sensory environment in which visual, audio, tactile cues are designed along with the theme, and ask the target customers to perceive the feeling in the environment and smell the scent candidates to select one(s) that best fit the theme. The visualization approach shows in the Figure 5-1 can be used again in this step to assist customers express their associations with the scent candidates. They may be asked to perceive scents one by one and choose pictures or colors that close to their associated scenes. Later on, olfactory design experts need to communicate with the consumers in depth and judge which scent(s) can effectively leverage the experience and create a harmony with the pictures, lights and background music in the environment.

The communication in this selection is not only for selecting the most favorable scent, but also for exploring when, where, in what form, to what extent the customers expect to smell that scent, because the signature scent, as a part of the statement of a brand, should engage in dialogue appropriate to time, place and circumstance (Lindstrom, 2005). Feedbacks obtained are regarded as inspirations and references rather than the principles for designing the olfactory touch-points, because the olfactory design is often aimed at going beyond the expectation of the target customers who are supposed to be inadvertently surprised by the signature fragrance.

Phase 3: Implementation and Evaluation

Step 6: Integrating signature scent into a sensory journey

Consumer-brand or Consumer-product relationship is changing through time. The first impression is obviously important, what the olfactory design should focus on is to successfully encode the brand image in consumers' initial perception of the smell involved sensory appeal. Nevertheless, this initial perception goes through a series of changes through prior site visiting, on spot, in-use product or service, and after use, as experiences with products and services accumulate. In

these terms, what needed for a consistent analysis is a mapping of the customer sensory journey, in order to provide a broad perspective to look at the whole sensory experience. Based on the understanding of wider context, a mixture of sensory touch points can be well designed in the stages of engaging, informing, guiding customers and bonding the brand with customers. The existed olfactory design process is relatively independent from other sensory cues design and it may be the reason for causing the failure of synergy across senses. Therefore, a possible method to improve the synergy is to consider the overall sensory journey when designing olfactory cues, and then olfactory cues will have explicit roles to play in various touch points.

With defined role of olfaction in the whole sensory experience, the emerged question is which touch-points should involve olfactory cues, and how. As mentioned in the first study, most clients turn to scent solution providers asking for a signature fragrance which can be applied in their products and/or retail stores. This fact reveals that the applications of scent have not been fully aware of. Following is an analysis of the potential applications of olfactory appeal.

Prior site visiting, customers usually initially be engaged through TV commercials, printed ads, website promotion. Those touch points are basically visual and audio dominated. Although DigiScents and other scent solution providers have developed technology to enable the scent emitting from special gargets that can be digitally controlled, however, the technologies have not been ready for mass application yet. On the other hand, many fragrance brands have practiced the scratch-and-sniff technology to attach smell to the magazine and other printed ads. This way of integrating scent is worth expanded to other industries. If the collaboration with visual appeal can be more natural and relevant, customers will be engaged in a more emotional and effective way.

On-the-spot usually happens when people stops in at a retail store where they get to speak to a shopping assistant and have on-the-ground experience. Sensory touch-points on spot have duties of engaging, guiding and informing customers. Most likely it is the place where customers first time receive the integrated information about the brand and products with all the senses engaged in. On spot is the most important phase because the first learning experience plays decisive role in building the scent association, and this first association made to the scent is difficult to undo(Herz, 2006). As SMELLING COMMITTEE claimed, the idea of olfactory branding is to directly tap into the limbic system of consumers by establishing an emotional memory that connects olfactory recognition with a brand identity. To establishing the connection, it is crucial to encode the brand information in consumers' first contact with the signature scent, rather than find a scent with mass appeal to distinguish the brand. Instead of presenting scent without saying anything and waiting customers to guess the meaning, sometimes the better way is to tell the story through sensory cues and bring the customers into a presupposed atmosphere step by step. Besides, customer insights obtained from step 5 will be especially appreciated.

In addition, what forms of scent should applied in touch-points need to be concerned as they have different effects on product and brand. As explained in the literature review, product scent reflects scent associated with certain product attributes, while ambient scent as environmental cue has the influence on the overall retail setting and brand impression.

In-use phase is the continuous of brand experience after shopping or site visiting. The first association that encoded to the signature scent need to be enhanced in following touch-points to form a long-term memory. For the brand whose products are not typically scent related, like cloths or home appliances, how to engage the scent in the product experience in use is a question requires discussion. Potential ways of creative application must bring surprise for customers.

After-use phase may be the end of the first using experience, but also be the critical stage for creating the bond with customers. The signature scent presented on spot should help to keep the first impression and best impression of this brand in the consumers' subconscious. The impression may fade as time goes on, so the touch-points in after-use phase aim to trigger that good memories, and then reverse the effect that caused by time. Olfactory stimuli probably are the best for that role. Consistently repeat the defined scent, the same as defined visual, tactile or vocal expression, would keep reminding the customers of brand core values. When memory is consolidated, familiarity will be formed, which is one of the reasons why customers trust the brand. If in after-use touch-points previous customers are elicited or encouraged to share their good experiences with other people, it is actually both engaging new customers and cultivating patrons' loyalty. That will ultimately enhance customer-brand relationship and encouraging the future contact with the brand and its products.

Step 7: testing the sensory journey and improving for implementation

The sensory journey with olfactory elements integrated in need to be tested in real life and evaluated for further improvement. The effectiveness of implementation could be evaluated from these aspects:

- Do the customers feel the signature scent authentic? Do they feel the scent expresses the brand's core values?
- Is the olfactory cue coherent with the other sensory cues and an integrated part of the recital?
- Can customers perceive the brand story through the sensory touch points?
- Does the overall sensory journey fascinate the customers successfully?
- Is there space for extending the sensory bond to new product ranges or sub-brand?

5.2 IMPLEMENTING THE PROCESS: ON THE ROAD PROJECT

In order to verify the optimized olfactory design process, it was implemented in a real-life design project. The criteria for choosing the project include: firstly, the brand hasn't practiced olfactory or sensory branding yet, but is looking forward to taking a try; secondly, having scent is not a typical attribute of its products, since designing for the fragrance-based products (e.g., perfume or deodorizer) may confound the effects of scent and fail to validate and even narrow the range of applications of the olfactory design process (Schmitt & Shultz, 1995). Instead, the ideal project I was seeking for was a new brand whose products' is usually nothing related to scent.. As a result, I chose to corporate with a startup designing innovative shoes and looking for multi-sensory branding for their business.

The project was conducted by a design and research team formed by one designer and one marketing specialist from United.T, one perfumer from the Scent Library, and I took the role as a design researcher responsible for planning the whole design process and moderating the research activities.

5.2.1 Front-end exploration for scent ideas

This project started with a front-end exploration, in which the design and research team analyzed the brand and its products' characteristics, then communicated the brand values with a group of young subjects who represented the target customers. Home interviews and collages were used to understand the target group's lifestyle, attitudes to life and shoes, life experiences and moods during the transition periods in life. As the exploration result, a persona and a mood board were created to present a story of "on the road" which was close to or beyond the customer's experience. The theme and tones were hereby defined and followed to formulate the sensory branding strategy and create the consistent signature scent.

Brand Analysis:

ON THE ROAD is a young shoe brand with pioneer spirit

The young shoe brand is called ON THE ROAD, inspired from the novel "On the Road" by American writer Jack Kerouac. The shoes were designed and produced by a design group called United.T. Their goal was designing the unconventional footwear with interests of young people's personal

experience and new discoveries from everyday life. ON THE ROAD represents a shoes style that embodies the meaning of life journey. The unreleased collection from ON THE ROAD features eco-friendly DuPont™ Tyvek®, a highly durable, lightweight, water-resistant, 100% recyclable but breathable material made of flashspun fibers. Introducing the material into shoe industry was a brave and creative try. Tyvek superficially resembles paper that can be written and printed on, and it has been pre-wrinkled to give shoes a “worn” look right out of the box (See Figure 5-2).



Figure 5-2: The new shoes range of the ON THE ROAD brand that made with DuPont™ Tyvek® material.

The brand ON THE ROAD with the core values of tough, pioneer spirits, targets the young customers who have dream and dare to take the challenges. Through analyzing the new product range from sensory point of view, visual and tactile senses were leveraged by contrast color and Tyvek material. However, the brand story was not expressed through sensory signals. It was a good opportunity to introduce olfactory branding in this case, because there were no well-known

cases related to scent appeal with shoes branding. When given the keywords of shoes and scent, people often associate them with foot odor. It is the time to break the concept and bring potential customers to find the fascination of olfactory experience.

Better yet, integrating olfactory stimuli to enhance the brand expression was suitable in this case. The brand message needed to be conveyed by a story that reflects the brand's core values. The story might be expressed by scent involved sensory experience. The effects of scent would contribute to completing the authentic experience and securing a synergy between the brand core values and the sensory appeal.

The goal of this olfactory branding project is to get inspirations from potential customers and design a distinct scent that conveys a story of "on the road". Furthermore, integrating the olfactory cues in touch-points to ensure a synergy across senses will ultimately reflect the core values of the brand. The final objective is about extend the consistency of olfactory cues to leverage the overall sensory experience to form a tradition, lead to a ritual, and build a bond to enhancing the brand-customer relationship.

Target Group Study:

communicating the brand's core values and exploring the potential customers' associations.

The main part of target group study is home interview with ten Chinese young people who were living in Helsinki and Shanghai. The research and design team took the responsibility for refining the criteria for recruiting the participants, which is briefly described below:

- Born between 1980 and 1989, (A generation known as "the Post-80s". They grew up during the transforming period of China and they are the first generation under China's one-child policy.)
- Having their own dreams, being optimistic for the future, and positively race in the society
- Dare to break the old constraints and take new challenges
- With everlasting creativity and energy

The selection of participants was intended to be even in sex and ages, meanwhile ensure the diversity of education background, profession, income and interests. All participants volunteered, and were assured of the anonymity and confidentiality of the interviews.

A home interview guide (see Appendix D) was used, which covered the main activities of observation, interview and collage. Each interview consisted of three parts: (1) understanding the participants' lifestyles, personalities, and attitudes towards life; (2) understanding their preferences for shoe styles, habits and attitudes of wearing shoes; (3) communicating the brand information and exploring the participants' sensory associations of "ON THE ROAD" concept.

Results and Findings

In the end of the target group study, a table listed all the participants' general background, attitudes to life and shoes, and their perception of the brand values (See Table 5-1 as an example). All the data was further interpreted and resulted in a persona, a document of cultural-social factors and a mood board. The persona as the archetype of target customers would be used in creating brand story and the persona's characteristics would be considered in planning customer journey map.

Target group data sample



PROFILE	Age	Gender	Residence	Education	Occupation	Hobbies	Personality
	26	Male	Shanghai	Bachelor	Animator	Football, animation, travelling, variety shows	Healthy, upbeat, independent
ATTITUDE TO SHOES	 <ul style="list-style-type: none"> - Four shoes for every season. - Likes white shoes, feel more confidence when running on the grass. - <i>"I meet likeable shoes just like meet a likeable person, that can only be found by accident and not through seeking."</i> - <i>"Shoes got more feel when it's wore out."</i> 						
ATTITUDE TO LIFE	<p><i>"Stay hungry, stay foolish."</i></p> <p>The happiest memory is working over night on their own project with best friends. Never buy luxury brand or cheap quality stuff. "I like making things by myself."</p> <p>Currently in the transition period of life, just started the first step to struggling for identity, maturation and a place in society.</p>						
SENSORY ASSOCIATION OF ON THE ROAD	 <p>Visual association: Vivid color, sometimes grey and dark.</p> <p>Olfactory element: Grass, snow, rain, alcohol</p> <p>Music association: Country rock</p> <p><i>"I believe ON THE ROAD means a journey fraught with difficulties, that which was bitter to endure may be sweet to remember."</i></p> <p><i>"It is a complicated emotion, encompasses reluctance to part as well as expectation for the future.I'm on the road at any time, probably because I always can feel the time is passing even when I am at a loss."</i></p>						

Table 5-1: an example of home-interview result, which will be further interpreted to refine the theme and tones for the holistic sensory experience.

Persona



Lin

Age: 27

Photographer / Entrepreneur

Personality:

independent, strong-minded, aggressive, cynicism, persevering.

Value the natural essence of things, cares about nothing but what he cares

Lin was born in an ordinary family in a county of China. He was not seen as a good student by the traditional model of education. But he has a clear-cut stand on what to love and what to hate, which is a personality admired by his friends and family.

Lin became a photography enthusiast when he was in high school, but never received any professional training. His dream of having his own art studio seemed to be eons away when he graduated from a third-class college holding a bachelor degree of journalism six years ago. He decided to go to Shanghai to find a job he likes, but then suffered from two years of job-hunting and ended up with no offer. He had been taking many temporary jobs for living, like network administrator in a cybercafé, salesman in the market, backman in a magazine office, etc. But even in the poorest period, he had never thought of giving up his hope to the future. He has been learning skills all the time, during the work and off work, from professional skills to living skills. He finally got his first full-time job in a newspaper office, producing artwork for a comprehensive weekly publication. This job provided him best resource to meet people, learn new skills, pursue his interests, and link his life to higher purpose. Ultimately he got opportunity to collaborate with another artist friend to start his own visual communications studio. Failed at the beginning because of lack business experience, and restarted again when he obtained helps from people who know marketing well. He is such a curious and persistent man, once attracted by something or interests in doing something, he will definitely devote wholehearted effects to make that happen.

"There's a saying - 'Society is the best university', at that moment I got a deeper understanding of that. The misery of life can easily beat people who don't have a faith. I believe I will change my life through efforts."

He keeps simple life since then, only buys the daily necessities, but willing to save money for cameras and other stuff he adores. He has 5 pairs of shoes for four seasons, within two pairs of them are worn out but still in service. He usually chooses shoes quite carefully; they have to be comfortable, durable, fit to his simplistic style, and with fair price. "I walk a lot and I like shoes that require no too much care in wearing. I'm used to wearing one pair of shoes everyday to anywhere for a long period. They then become a part of my body, so that I don't have to worry about breaking the shoes all the time." There always be a pair of shoes has been accompanying Lin in his particular period, and carry his memories of joy and pain naturally.

"For me, on the road means a journey of struggling and progress diligently, a journey that is down-to-earth, rather than fantastic dream, which comprises love and hate, happiness and sadness. The whole image in my mind is grey background with bright color in the foreground."

Cultural-social facts

Youth around age 20 are more likely to describe an exciting journey around the topic “On the road”, while youth after 25 are likely to show their frustration and happiness from life. That may be explained by their growth experiences in the social context of China. Before graduate from college, young Chinese who grow up in the cities almost spend all their time on studying and only socialize with their classmates and friends in most cases. To some extent, they are out of the touch with the real society. In that period, they usually get supported from their parents even when they are adults already. Therefore they have less stress and also take less responsibility. When they are freshly out of school and start their first jobs, they start to struggle for identity, maturation and a place in society. On the other hand, those who have been out of the family circle and living independently for years, have deeper understanding of the social complexity, thus their experiences of “on the road” is related to the journey fraught with difficulties that is bitter to endure yet sweet to remember.

Moodboard



Figure 5-3: The Mood board that synthesized from all the consumers' collages and stories.

The theme and tone for the holistic sensory experience

Theme: “On The Road”

Tones: Nature, Dynamism, and Vitality.

In the basis of the participants’ descriptions, the experience of “on the road” was frequently associated with the scenes of natural beauty and the real society: sunshine, woods, country road, and all kinds of people with various behaviors in the city. Furthermore, it was clear that the most important element in the association was the dynamic motion – like the running motorbike, swaying reed, blinking neon, etc. – that represents both the status of themselves and their perception of surroundings. In other words, their sensory experiences of “on the road” possessed vitality.

5.2.2 Design the scent to tell the story of “On the Road”

The role of olfactory stimuli

The insights gained from the brand analysis and target group study inspired us on how we could take advantage of olfactory stimuli. In this project, scent was designated to take three different roles:

1. To enrich the promotional material: Perfume the printed flyer, advertisements.
2. To complete sensory experience of “on the road”: scent in ambience
3. To store or trigger the memory of the “on the road” experience after purchasing the shoes: perfume the products or by-products.

Choosing scent ingredients in a prototyped multi-sensory environment

In this step, research and design team had discussions for two aims: first, quickly to design the other sensory stimuli except the scent; second, to extract the olfactory elements from the findings of the first phase exploration.

As a result, the prototyped environment consisted of visual stimuli (i.e. photos that refer to the mood-board and match the theme of “on the road”), auditory stimuli (i.e. African drum music that express the power from nature and active lives) and tactile stimuli (i.e. the ON THE ROAD shoes that allowed participants to try on and have the concrete sense of Tyvek material) (See Figure 5-4). The environment prototyping took place in the experience room of Scent Library Shanghai.



Figure 5-4: other sensory cues in the prototyped environment: photos about on the road (sight), Tyvek material and shoes (touch), African drum music (sound).

Meanwhile, the internal discussions resulted in a total of ten scent ingredients that were selected as candidates waiting for evaluation by the potential customers. They were: Wet garden, Dirt, Rain, Ocean, Grass, Leather, Gin and tonic, Storm, Bonfire, Storm.

Ten bottles of scent samples were prepared for the customer test in the prototyped multi-sensory environment. Each scent was presented in a reagent bottle containing one scented cotton ball. Each bottle was labeled with the scent name to assist the smell perception. From the earlier association test, I found that without label, people tend to concentrate on trying to name the smell too much rather than recalling the scent relevant associations. Therefore the labels would simply be used to give the names of those scent ingredients and they were not overly descriptive or did not exert strong influences on participants' perception of the smell.

Ten people participated in the test, five were from the participants who were in the target group study, and the rest were newly recruited and they also met the criteria of potential customers. By doing so, we obtained broader opinions to ensure the scent design outcome can positively influence broader consumer group, and avoid concentrating too much on only the initial ten participants. I then asked subjects to smell these reagent bottles and rate each in terms of whether congruent it was perceived to be for the theme. The congruent scent bottles were put on the left side of coffee jar, incongruent ones were put on right site (See Figure 5-5).



Figure 5-5: Scent candidates (left) and participant is perceiving the scent in the multi-sensory environment (right)

According to the analysis of customers' selections, plus perfumers' professional suggestions, three scent ingredients were chosen for developing the eventual signature scent for the ON THE ROAD brand. They were: Rain, Grass, and Dirt (See Figure 5-6).

The three scent ingredients were chosen to present the "on the road" scene with the tones of Nature, Dynamism, and Vitality.

Rain represents young peoples' struggle, hesitation, and even repressed emotion. The feeling of unknowing where is the right way to the future. Grass is a simple, natural but strong life that can be seen everywhere, it is like young pioneer's lives in the world. They are seeking their ways to fulfill their dreams, which in many cases are not really forthcoming, so they have to blaze a trail through the wilderness by themselves. Dirt is where grass and other lives rooted in, and it is also every walking step grounded on. Finally, perfumers developed the signature scent through several times preliminary tests (See Figure 5-7).



Figure 5-6: the three chosen scent ingredients for developing the signature scent for the ON THE ROAD brand.



Figure 5-7: ON THE ROAD signature scent developed by perfumers with customers' contribution.

The scent would be used in some touchpoints to enrich customers' sensory experience. It will convey a story that reflects the characteristics of the persona created in the exploration phase:

Lin, a young entrepreneur, received the first investment for starting his dream. He was so excited that could not stop running in heavy rain. The rain beat against the dirt and splashing in his face. The smell mixed weeds and sweat, recalls him the hard past time, which became a meaningful experience to memorize. He kept running till the rain stopped. Then, the dark clouds dispersed, the sun shone again. He could smell the grass growing rapidly as if he could feel the power of life. He thirsted for a turn arriving, which generated his hope for the future. Behind him lays everything he had previously experienced, and life on the road. He started to more believe that there will be a magic land in the future.

The story can be reflected to anyone who is bold enough to exploit the areas that others are afraid to go to, and create his original thought to achieve his dreamed future. Then, this story was visualized in a short advertising film and used for conveying the brand core values to the consumers.

Integrating signature scent into a sensory journey

The customer journey map is one of the most useful approaches used in service design. It is an oriented graph that describes the journey of a user by representing the different touch points that characterize the interaction between a customer and a service. There is a high level of simplified synthesis since it eliminates the redundant information and the deepest details. In this project, the customer journey mapping was used as a way to easily map sensory touch-points throughout a possible scenario of a target customer's interaction process with the products and brand.

The entire sensory journey is shown in Figure 5-8. It is broken down into three specific stages:

1) prior-site visiting, 2) on the spot experience, and 3) after-purchasing.

The customer journey, which consists sequences of interactive activities, is empathically structured step by step from customer's sensory perspective. This analytical construction process was based on the understanding several questions:

- How would customers get engaged before visiting the store?
- How would they be informed and follow the guide to perceive the brand story and understand the brand core values?
- What would they be willing to do to keep the interaction with the brand story after purchasing?

To answer these questions, the persona as the archetype of young people with pioneer spirit was used to reflect target customers' interests and emotional needs. By mapping out interactive activities in customer journey, sensory touch-points are actually explored simultaneously. For instance, when asking "what can get Lin's attention of Tyvek shoes?" the answer may associate with all kinds of sensory appeal, such as video commercial, printed advertisement, etc. But considering he is a man who curious about the novel things, common sensory stimuli may not be attractive to him. What he needs is something unusual and surprising. What if Lin receives a leaflet made of Tyvek material and smells like outdoor natural fresh air, on which it reads "try to tear me, if you fail, come on and check out how I can be used to make shoes. See you in our show for the new brand launch!" Thus it can be seen that the customer's sensory journey map visualizes the opportunities of where to integrate the olfactory cue to leverage the entire experience.

Furthermore, Norman (2009) has argued that the experience in people's memory is even more important than the actual experience according to the psychology studies in primacy and recency effects. He claimed the delight experiences of the beginning and the ending are the most significant parts that need to be accentuated since it will overwhelm the negative ones in people's memory.

In this project, what scent can contribute on this two ends of experience possibly are: at the start point, to form the brand association in driven by curiosity, and keep the first and best impression of this brand; at the end of experience, use the scent in the after-use sharing activities in order to make customers conjure up the past image and retrigger the emotion they had at the start point.



Figure 5-8: customer's sensory journey map visualizes the opportunities of integrating olfactory cues in certain stages.

5.2.3 Test before Implementation

The created signature scent and sensory journey map were tested in a marketing campaign for the new brand launch. The test process followed the customer journey map and it involved innovative sensory touch-points as planned. It consisted of three stages: 1) preliminary engagement, 2) on the spot experience, and 3) after purchasing enhancement. Below is a description of how olfactory touchpoints were integrated in the interactive activities in different stages.

Sensory touchpoints for engaging potential customers prior to the site visiting

In this stage, signature scent played a supporting role in collaboration with tactile and visual stimuli to attract potential customers. Hundreds leaflets made of Tyvek material and perfumed with the “ON THE ROAD” signature scent are delivered through various marketing channels. As Figure 5-9 shows, the leaflet message “Tear it as hard as possible” encouraged the customers to interact with the unique material, meanwhile left them the first impression of the brand’s visual identity and let them perceive the signature scent unconsciously. The back of the leaflet is an invitation letter that tells the shoes features and invites the customers to come to and experience the multi-sensory show for the new brand launch.



Figure 5-9: the leaflets give potential customers a tactile and olfactory impression of the new brand.

Sensory touchpoints for telling the brand story on the spot

When potential customers arrived at the show site, they were guided by a sequence of sensory cues to approach the brand core values. Signature scent in this stage was not only for creating the atmosphere of “on the road”, but also shouldered the responsibility of triggering the customers’ personal memories of their past adventure experiences.

The new brand launch show took place in the most popular lifestyle center of Shanghai, called Xintiandi, means “New Heaven and Earth”. Visitors came to the show were first asked to register in reception desk where they could get scented brochure. There was also a scent emitter keeping diffusing the signature scent around the reception desk to ensure every visitor perceived the signature scent again, hereby the impression was deepened (See Figure 5-10).

As visitors going into the exhibition hall, they were rounded by visual stimuli. All the stands were displaying the new shoes style. Some special editions were displayed in single stands with an artwork standing behind each of them to portray the story of the shoes pattern. Visual elements like contrast colors and dynamic geometries presented the tone of “Dynamism” and “Vitality”, which were used to pave the way for a climax of the show by activating visitors’ emotions (See Figure 5-11).



Figure 5-10: Olfactory touch points in reception desk



Figure 5-11: visual stimuli in the exhibition hall focused on contrast color and dynamic geometries, meant to present the tones of Dynamism and Vitality.

The visual layout was followed by a multi-sensory story telling, which combined film, ambient scent and background music. It turned up the heat of the show. When all the visitors gathered in the center of exhibition hall, the wild screen started to play a film telling about a young entrepreneur's story. The film used the persona – Lin as a character, brand story as the script, and the scenery was based on the scene we designed for the experience of “on the road”.

When the film played to the episode of Lin running in the heavy rain, looking back of his rough experience, and celebrating the turning point of his life, all the scent emitter started to diffuse the signature scent which mixed the smells of rain, dirt and grass. To achieve a rapid onset of the “on the road” atmosphere, the scent was also sprayed in the air by staff. After the whiff of scent pervaded the exhibition hall, ran the voice-over, “I will always remember the smell of the rain beat against the dirt, mixed with weeds and my sweat. That is the smell of ON THE ROAD.”

The film ended with the subtitle,

“What’s your road, man? --Holy boy road, madman road, rainbow road, guppy road, any road. It’s an anywhere road for anybody anyhow.

- Jack Kerouac, On the Road.”

All the sensory cues were designed to make the audience resonate to the inspirational story through reminding them of their own experiences.

When the film ended, a West African drumming and percussion band – JAMMALA, began to play distinctive and upbeat African music in the show (See Figure 5-12). West African percussion music is regarded as the most natural and original sound in the world. The music was intended to create a feeling of the wild out-door environment, maybe associated with a primal place of human roots, and bring the audience feel the upbeat emotions of on the road. The music went beyond the language. Some customers might have difficulties in expressing and sharing their feelings about the signature scent, but the music made them able to understand and share each other's emotions.

With the music, people were asked to try the Tyvek shoes and test the material features of lightness, waterproof and breathable, tear-resistant (See Figure 5-13).



Figure 5-12: Auditory touchpoint: JAMMALA was playing African drum music in the show.



Figure 5-13: visitors were asked to try the Tyvek shoes and test the material.

With the African music, visitors were actively exploring the new brand and new range of shoes, and then sharing opinions with each other. Beverage and black chocolate with fruity dressing were served as a taste touchpoint to continue enhancing the bittersweet experience of ON THE ROAD. The synergy crossing five senses was achieved in the show (See Figure 5-14). Visitors who were interested in the shoes could make purchase right away. For those who ordered shoes on the show were given a small potion of the “ON THE ROAD” signature scent as a gift. It was prepared for guiding customers to the next stage of the sensory interaction with the brand.



Figure 5-14: Synergy achieved cross the visual expression, background music, signature scent, tactility of Tyvek material and the bittersweet desserts.

Sensory touchpoints for bonding with customers after purchasing

As planned in customer journey, there would be some interactive activities involving olfactory touchpoints at the after-purchasing stage. There will be a webpage under the ON THE ROAD official website for customers to upload and share photos of their “on the road” experience with wearing the shoes. People can also attach stories with pictures and comments on other customers’ albums. A community for young people who are “on the road” is going to be formed. These albums are their documentaries for their life journeys with the ON THE ROAD shoes. However, consumers’ interests and excitement may be subsided along with the time past, and they may become alienated from the brand. So there may be other touchpoints need to be involved after long period. Therefore, in the customer journey we planned one or more years later, the album will be printed and scented with ON THE ROAD fragrance and delivered to the customers. That would be a cue to bring customers a flashback and rediscover the excitement with the brand and Tyvek shoes. It is a strategy to stimulate the long-term relationship between the brand and the customers. Even if when those young people are no longer customers of UT shoes after a decade, they may still keep the scented album and those photos may trigger their memory of the age of adventure, and bring the nostalgic emotion.

The signature scent and the sensory journey map were modified according to the feedbacks collected from the test. The signature scent will be consistently used in the brand platform in extended product ranges or services in the future. The advertising film will be spread on TV and video sharing websites for fascinating more potential customers. “Sensory consistency is what creates loyalty. It builds trust, generates history, forms tradition and leads to rituals.” (Lindstrom, 2005). Therefore, through the strategic planning and executing of the customer’s sensory journey, the ultimate goal of enhancing the brand-customer relationships is more likely to be achieved.

5.3 RESULTS AND DISCUSSION

The new brand launch show was successful. Over two hundreds visitors joined in the show. After it, over 30 visitors were asked the questions listed below to evaluate the sensory experience they have.

- What do you think of the whole experience?
- How's your understanding of the "on the road" story?
- Does signature scent of "On the road" feel real?
- Does it feel relevant to the brand core values?
- Is it coherent with other sensory cues?

Most of visitors were excited about this experience. Some of them indicated that the film with African drum music and the scent diffused in the exhibition hall well presented the theme of "on the road" and gave them a fresh experience that is not common in marketing campaigns. One visitor said "I was touched by the film. It reminded me of the experience of myself, because I am also an entrepreneur, I wouldn't have any achievement without the encouragements from friends and family, because only those who have experienced it know how difficulty it is."

Some visitors regarded the show as an enriched product experience, even if they were not fully noticed the sensory touchpoints. The overall atmosphere brought them positive emotions.

Some visitors indicated that the smell of "on the road" was better perceived with the film and voice-over. They might not be able to tell the exact ingredients in that scent, but when they were watching the film, the scent blew in a congruent way other than came aggressively. However, it was difficult to control the evenness of the scent in such a big exhibition hall. That caused that some people standing in the corner smelled much less of the scent as those who standing in the front and middle did. Therefore, the scent diffuser's installation is always an important technical problem that necessarily to be considered. Interestingly, some visitors said they started to recognize the smell was the same as it was in the reception desk and on the leaflets.. "I was asking my boyfriend standby, 'Can you smell the aroma? Isn't it the same one on the leaflet?' I wondered if it is custom designed for this brand, and it turns out to be really the case." It demonstrated that the scent used for engaging the customer really arouse peoples' curiosity to exploring more about the brand.

However, people didn't see much connections or interactions between the visual setting and the African music band or the scent of "on the road". They explained that they felt the visual setting was much more modern style while other sensory cues were more close to natural and wild tones. It reveals the challenge of modify the congruency among multi-senses. All the sensory elements need to be considered and designed in the same design process to better ensure the synergy that the designers want to achieve.

As a general view, the “ON THE ROAD” project offered a practical perspective to review the olfactory design process proposed in this thesis. Designers, marketing specialists, scent researcher, perfumers who participated in this projects all saw the value of the communicating approach used in the front-end exploration and the customers’ sensory journey mapping. Without doing these works, the scent design might only focus on the shoes features and neglected the potential customers’ perception and association with the brand values. And we all understand the olfactory design process has its limitation for application in various cases. Therefore, special details need to be modified in different projects according to the particular purposes.

Besides, there is a question emerged after the project - how to create an immersive digital environment that can enable the online customer have the same sensory experience? Nowadays, online-shopping is becoming increasingly popular. The ON THE ROAD brand also has set up its online store for taking advantage of the low cost and convenience to the customers. However, olfactory stimuli are not easy to apply in virtual context because of the technical limitation. So the customers who are not used to visiting the real stores will be absent from the on-the-ground multi-sensory experience. Therefore, with the development of relevant technology, sensory experience in virtual environment may be a focus for the future study.

6

CONCLUSIONS AND DISCUSSION

This chapter summarizes the research work done so far, including discussions and conclusions of the study. Also theoretical contributions of the work as well as future researches are discussed.

As a starting point of this research, I was interested in the flashback elicited by certain scents, known as Proustian Phenomenon in psychology, and tried to understand its value to olfactory design in commercial use. In order to gain a basic understanding of the current situation of sensory design and its application in the marketing and branding practices, a literature review was firstly carried, and it helped me to discover a more specific and valuable research topic. I found both psychology and business fields have studies discussing the olfactory stimuli and how they may influence people. However, there is an obvious gap between the psychological findings and commercial practices. The research in psychology has shown that scents have strong effects on peoples' memory, emotion and behavior, which could benefit in branding and marketing (E.g. Herz, 2007; Hughes & Tillotson, 2006; Zucco, 2003). Meanwhile, many brands have already started including olfactory stimuli in marketing strategy to increase sales and build customer loyalty. However, most of relevant experiments fail to capture the evidence to prove the effects on customers' evaluation and behavior by simply present a scent (Bone & Ellen, 1999). The potential explanation for the existence of this gap may be that marketing expectation of utilizing the scent effects in marketplace lacks of the guidance support from consumer research study. In other words, a systematic guidance of what and how to design a scent for a brand to hit the target customers is absent. To bridge the gap, it is necessary to have design researcher play a role in assisting the transition from consumer research to design implementation. Therefore, the first research question emerged here is that how to design a scent that convey the core values of the brand and improve communication with the target consumers.

To give an answer to this, it is necessary to analyses the general and common scent design process in branding and discloses the aspects that may need to be improved. This becomes the focus of my exploration studies in chapter four, which consists expert interviews and scent association tests. The first study, expert interviews, was conducted with a creative director from IFF olfactory design lab and a managing director from the Scent Library Shanghai. The findings from interviews revealed one of the most notable aspects, that is the difficulty in translating consumer insights into scent ideas and this could be attributed to the barrier of communication in consumer research. Because of this issue, the second study focuses on trying to understand the courses of the communication barrier and create an approach to improve the existing consumer research. The second study, a Scent Association Workshop was carried out to explore consumer's competence of scent association and its expression. The facts from workshops show that people have difficulties in olfactory imagery and expression, that is, it is not easy for them to imagine or associate scents directly from the verbal brand briefing, nor to articulate their perception of scents. A possible reason as well-documented evidences proved is that language and olfaction are poorly interconnected (Stevenson & Case,

2005). Meanwhile, it is interesting to find that participants were easily to obtain visual imagery when talking about certain scents, and they were tend to express the feeling of perceived scent with descriptive words borrowed from visual domain since the scent triggered subtle feeling related to their memories of the past scenes, as they explained. This finding suggests that the vision-olfaction synesthesia might be successfully used to develop an approach to transfer the consumers' knowledge or stories to valuable scent design ideas.

The synesthetic visualization approach is proposed as a significant medium to enable target consumers express their association of the brand core values through creating collages and story telling. Later on, consumer researchers and olfactory designers can interpret the consumer insights and translate them into a mood-board to reflect the visual scene in consumers' mind. Afterwards, olfactory elements can be extracted from the visual scene and consumers' stories to inspire following scent creation. Nonetheless, the developed approach may only solve the key problems in consumer research phase and there are many other potential factors in exiting olfactory design process that may impact the final outcome of scent design need to be considered as well. Expert interviews reveal one issue that the widely deployed scent design process is relatively isolated, that the other senses are usually not considered along with the olfaction. This may be one of the main reasons for the failure of many scent design outcomes which cannot create the positive synergy across the different senses in implementation. Then, the research question was examined from a macro level, regarding the scent design as one part of the holistic sensory branding process. So the research proceeded to another question that is highly relevant to the first one: How to integrate olfactory touchpoints to leverage the entire sensory experience and eventually enhance the brand-customer relationship in a long term?

To answer this research question requires optimizing the whole olfactory design process from consumer research, scenting creation to implementation from a strategic perspective. Referring to the findings from the exploration studies, an optimized olfactory design process was constructed in chapter five based on the six-step sensory branding process suggested in Lindstrom's book of *Brand Senses*.

The developed process can be seen to include the following phases:

Phase 1: Front-end exploration means to communicate the brand core values and discover customers' association.

Phase 2: Designing the signature scent with the brand story embedded, and prototyping the multi-sensory environment for scent selection, meanwhile map out the olfactory touchpoints integrated in a sensory journey.

Phase 3: Testing the sensory journey and improving for implementation.

The communication approach and design process was implemented in the "ON THE ROAD" project as a test, and customers' feedback and insights were collected for inspire future research. In the test project, the value of new approach and process brought to the brand was obvious. Customers were actively engaged in the scent co-creation process, and naturally expressed their associations with the brand core values from sensory point of view. Olfactory designers created

the signature scent with taking account the theme and tones of the sensory experience. The brand information was successfully encoded in customer's impression along with the scent perception. The olfactory touchpoints were integrated in the whole sensory experience including the stages of prior shopping engagement, on-the-spot experience and after-purchasing enhancement. Although the evaluation of the effects on memory and brand-customer relationship takes time, at least based on the obtained results, it can be concluded that most of the goals of the thesis, stated in chapter one, were achieved.

6.1 SCOPE OF APPLICABILITY

Developing and implementing the olfactory branding strategy is difficult and takes time. This thesis illustrates the value of olfactory design in branding process from a design research's perspective and shows the possibility of using synesthetic visualization approach to give customers an opportunity to share their understanding and association about the brand core values, meanwhile provide olfactory designers a rich recourse to discover more stories for creating olfactory experience.

The optimized olfactory design process may bring a powerful tool to help companies access the synergic strategy of olfactory branding.

The approach and process constructed in this research are not domain specific, and I believe it can be valuable to those companies in a variety of industries who have not settled sensory identities.

The optimized three-phase olfactory design process is a strategic platform and it has the potential to be applied for the organizations with larger scale. The most critical preliminary work for applying it in an organization is the sensory audit of the brand. Furthermore, analyzing the role of signature scent in brand experience may require rethinking the existing sensory expression, which is more complicated than the case presented in this thesis. The results of this thesis are limited to only one case and a reality analysis in greater depth is still needed. Thus, care should be taken in generalizing the results to other organizations and context.

In addition, it is essential that the design process is conducted by designers and design researchers and reflects the principle of Human-Centered Design in an interdisciplinary team. In the "ON THE ROAD" project, the design process involved all the stockholders in every stage. The team consisted of marketers and shoes designers from United.T group, design researcher, olfactory designer and olfactory marketing specialist from the Scent Library. The design researcher, shoes designer and olfactory design all familiar with the HCD process and actively participated in the front-end consumer research phase so that the team collaboration was running smoothly. But in some projects, there may be only marketers, consumer researcher involved in the whole process. In that case, adopting the developed approach and process may need more instructions and practices.

6.2 THEORETICAL CONNECTIONS AND RESEARCH CONTRIBUTIONS

From the academic point of view, showing the theoretical connections and the research contributions of the construction is an important part of a constructive research study. In this research, the construction makes a theoretical contribution and provides new knowledge on designing for the olfactory branding experience.

Case studies of olfactory design process in actual branding projects are rarely reported. The documented literature seems to focus mostly on presenting the implementation or application of signature scent, and describing the effect of scent as a part of the brand identity. Therefore, a systematic description of the olfactory design process is an important part of theoretical contribution of this research. It shows that the sensory identity and experience of a new brand can be developed together with consumers by adopting approaches from design field, such as mapping olfactory touchpoints in consumers' sensory journey by adopting customer journey map approach from service design.

Furthermore, There are some methods and processes documented in psychological experiments about testing the affective responses that certain scents brings to people, but barely have a tool introduced for boosting consumers' olfactory imagery and helping them expressing their expectation of brand sensory experience, which is the obstacle in obtaining consumer insights. In addition, olfactory consumer research has not seriously looked upon the gap between olfaction and language and sought solutions to bridge it. The conventional methods and techniques used are mostly based on the verbal self-report. For instance, IFF has developed the Mood Mapping technique to ask people check the moods associations that are spontaneously evoked by fragrance (Warrenburg, 1999), but the result is a database of words description of scent attributes. However, as I understand, affective response to a scent is a mixture of mental associations, which may be too abstract and implicit to be categorized into explicit mood segments. Therefore, the emotional response to a scent may need to be discussed from a more perceptual angle instead of using rationalistic methodology.

The most significant theory contribution of this thesis is the creation of the synesthetic visualization approach that uses an alternative sensory system for communicating the olfactory imagery and association. Based on the literature review and expert interviews, using the approach to bridge the gap between the language and olfaction seems to be new. In addition to this, the approach can potentially probe the cultural-social impacts from target consumers' shared stories, that would give olfactory designer a more empathetic perspective to consider the cultural-social factors.

This study brings also some contribution to the theory of constructive research. There are quite many articles in the domains of business, technical sciences and information systems where constructive research approach has been successfully used (Lukka, 2003). Now it is also recommended in design

realm (Koskinen, Zimmerman, Binder, Redstrom, & Wensveen, 2011), and this study provides the ideas on how to adopt the constructive research process to integrate design in the practical related research. Some design activities like persona, collages, and experience prototype were used as qualitative research methods in the process of construction, which are proved to be effective.

6.3 FUTURE RESEARCH

Signature scents are used by a relatively small group of brands, and olfactory branding is still in the beginning of receiving attention from various industries, but the future looks promising. As the ON THE ROAD brand will continue auditing and improving its brand olfactory experience, the development of olfactory branding strategy for every brand is a long-term mission. Mapping the olfactory touchpoints in sensory journey is only a beginning towards a more comprehensive integration.

Along with the progress of explorative research and construction, some directions for future research are discussed as following:

Playing an interactive role

Olfactory design in the sensory branding process is not aiming to be aggressive and substitute for visual or other sensory expression. What role the olfactory stimulus should play in each design project is always a question needs to be asked before designing. Since the interaction between senses would be an interesting way to achieve surprising synergy, it would be worthy studying the interactive role that scent could play in customer journey.

Innovative forms of scent

Since now the scent has to be carried by physical object, like fragrance, incense, etc. and it is clear that the scent forms have lots of potentials undiscovered, and therefore what the olfactory experience could be in the future if the scents are available to be presented in various innovative forms might be an interesting question to ask.

Virtualize the olfactory experience

There is a question emerged after the project is that how to create an immersive digital environment that can enable the online customer have the same sensory experience. Nowadays, online-shopping becomes more and more popular because of the low cost and convenience brings to the customers. However, that trend may challenge the olfactory experience that relies on the tangible experience.

Developing the technology to realize the digital transmission of scent is one thing, but virtualizing the olfactory experience is also something compelling.

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APPENDIX

Appendix A:

Transcript of Expert Interview 1

This transcript is documented based on the recording of the interviews. The interview was conducted in Chinese, and the content is translated into English and written in the first-person narrative style.

Time: 17.03.2011

Place: Tian Zi Fang, the Shanghai office of Scent Library

Expert: Banny Li, Managing Director at Scent Library (formerly DEMETER Fragrance Library, Shanghai)

1. Introduction

1. Introduce the background information: the interviewer, research topic, interview purpose and the process. The following story is told to the expert before the interview:

S: I'm a master student from Aalto University School of Art, Design and Architecture. I'm in the process of my thesis research which focuses on the scent branding. I would like to interview scent experts like you to better understand the effects of scent on consumer and current status of sensory marketing in China. I'm interested in gaining a larger perspective on how you see the opportunities and challenges in scent commercialization and the future of scent application.

2. Declare the research data will remain only for thesis use, will not be published elsewhere without employee's prior consent.

S: The interview will be recorded to help me to memorize what happened during the interview. If you do not want to be photographed or recorded on tape in particular situations, or feels uneasy in being recorded, you can ask to stop recording. The interview content and observations gathered during the interview is only used for thesis research use, not for any commercial purpose. It can only be published in my thesis with your prior consent.

2. Overview of Scent Library

2a. About interviewee

S: Could you please tell me a little bit about yourself and your role here?

L: I am the director of Scent Library Shanghai, responsible of managing the East China market, also involved in scent design in projects.

S: Whom do you work together with mostly?

L: In Shanghai office, we have scent designers and perfumers who have experiences in fragrance industry, sales staff who are responsible for introducing our products and scent story to our customers, and business development team in charge of building relationship with our clients. We work together to serve our clients. We also have contact with DEMETER fragrance library headquarter in New York, from where our staffs get training regularly.

2b. About company

S: What is the history of the company? What's your personal story with the company?

L: The founder of Scent Library, Lou Nanshi, was my schoolmates at the University of Auckland in Zealand. She found the fragrance industry a lot of potential in China, and after market research she and her friend Chou Yi-chen and Li Geng decided to start their own business in China and introduce the Demeter brand first.

S: How would you describe the business that you are in?

L: Scent or fragrance industry is fascinating. Chinese people's demand for scents or aroma or fragrance is increasing. Here you can see more and more fragrance stores emerging in china's fast-developing cities. We sniff the business with our own interests. We love the scents and making money is not the pure goal for our business. Although China's fragrance market is still in its infancy, international brands are relying on Chinese customers to boost their sales as the US and Eruopean markets shrink.

S: Who are the company's clients or client types?

L: Most of our customers who buy fragrance directly from our stores are young people who like innovative things. Our target group is differs from other fragrance brands. Our customer doesn't have to be a fragrance lover. They are generally love life, sensitive about smell. Besides selling

fragrance products through B2C, Scent Library also does olfactory design for commercial clients, include Audi, China Vanke Group, China Zheshang Bank, Fashion group I.T., and so forth. We also get projects collaborating with photographers and artists for their exhibitions.

S: How is your business running today?

L: Our business is running well. Scent Library is welcomable by young people who like innovative things. In addition to stores in Beijing, Shanghai, Hangzhou, Ningbo, Shenzhen, Guangzhou and Chengdu, we also have Scent Library's outlet in Shenyang. We plan to increase the number to 30 by the end of 2011, including one in Taiwan. Besides DEMETER, we also start to collaborate with other scent brands such as MOR, TO THE SCEN, Six Scents, CALIFORNIA scents, MARGARET JOSEFIN.

3. Scent Products and Business

3a. About products and services

S: What kind of products does Scent Library offer?

L: We have a variety of scents are displayed at each store. Customers are always interested in our store's interior decoration and come in to have a look, and then they may find some special scents catering to their tastes among our 150 choices. We are also trying to produce new scents for the Chinese market. We recommended Oolong tea and red bean, because Chinese people like their aromas. S: Are they all fragrance? L: No, besides DEMETER fragrance, we have scent gel, scented candle, reed diffuser, air freshener, fragrance sprays, and scented body care products.

S: What is the technology you use to extract the smell from a certain item or place?

L: We use GC-MS (Gas chromatography–mass spectrometry) to analysis and extract scent to highly simulate the real-world smell. I can send you more details about this technology later after this interview, if you are interested. S: Yes please. Thanks. L: Our single-note scent allows our customers to customize their own smell by simply mix several scents. For instance, you can mix Paperback and Dust, it will smell like vintage library; Mix Popcorn, Dust, Bubble gum, and Tarnish, you will get a smell of old cinema.

S: Do you have any smell stories that your customer shared with you? How they think of the sense of smell?

L: Normal customer's first experience in Scent library would be surprise to smell our scents. Because some of them are too ordinary for people to pay a special attention to it in everyday life,

but it do leave impression in our sub-consciousness. For instance, celery, people cannot name it at the beginning, but they are struggling to name it because it is so familiar to them. When I told them what it is, they exclaimed, “ Yes, it is celery! Sometimes when my mum cleaning and chopping the vegetables for supper, the kitchen reek with the smell of rice and celery. ” It’s like Déjà vu, you know, the smell recalled them something that easily neglected in memory. Another story, one day I met a customer came to our Scent Library and told me a story of his experience 20 years ago, in which contains a special scent in his working factory, in the end he asked me: “ Do you have this kind of scent as I described?” I remembered I was touched by his story, but no one can really understand his personal feeling about this smell. I told him it’s a shame that I probably not able to develop the exactly the same smell in his memory as he described, but possible to modulate a smell that close to that factory environment if we get enough information.” S: Is he disappointed? L: Yes, but he expected it anyway. Smell is mysterious, when certain smell turn out to have an intimate bond with you, it’s not purely a chemical concoction, it becomes a carrier of memory, no one can tell what’s in there except yourself, however, it’s hard to articulate for sharing. But we relish the mystery.

S: Which scent or scent category is the best sale? What is the reason do you think? Is it just because it smells better than others?

L: Rainy Garden and Baby powder are the best sale in China and U.S market respectively. Regarding to local market, Linden has proved a hit with financiers, Wet Garden, gin and tonic is popular with female customers, while male customers prefer cannabis flower, linden and ginseng root. It is hard to say that the best sale scent always smells better than others. People’s preferences are influenced by lots of factors. Our scent is differs from other fragrances, some scents like Rust or Dust are too unique to be accepted by most people. There is a rule; generally the more unique scent, the fewer people would like it.

S: Is there any significant difference of scent preference between Chinese people and foreigners as you see?

L: Yes, scent preference is highly related to the culture and growing environment people in. Western people may have strong attachment with the smell of ginger bread because of the Christmas, while people born and raised in China may not feel anything about the same smell. That’s why we need to localize the scents according to our local customers. At first we stocked 300 scents. After three to four months, we found some don’t fit well with Chinese people’s tastes, such as fuzzy navel and humidor, so now after selection we put about 150 selections. I remember we had a project collaborated with an Italia furniture company, who asked us to create a scent for their trade fair in a shopping mall. We didn’t fully take their advices of using the scent notes of bakery and coffee to convey a home atmosphere, Because their products is targeting Chinese market and Chinese people are not used to baking or making coffee at home. We finally created a scent with Linden and Sandalwood notes which can better present the lifestyle that Chinese consumers of target age desire.

S: What kind of services do you offer to clients? What do you think is the reason for them to turn to DEMETER and involve scent in their business?

L: Besides selling fragrance products, Lou's company also does olfactory design for commercial clients. Their projects include China Zheshang Bank on Beijing Finance Street, Vanke's property project in Tangshan, Hebei Province, and fashion group IT's outlet in Hong Kong. We create the scent for our clients for their business needs, like Audi asked us to create a scent which can express the enterprising spirit. And the director of the movie Under the Hawthorn Tree wants to have two scents to respectively represent the leading actor and actress. You can see we play a role in the process of transferring the intangible thing to tangible industries. We believe the scent value will contribute to the success of the business strategy.

S: What specific requirements do your clients usually have for the scent you are developing?

L: Client often asks us to create a particular scent for its brand to help recall certain emotions of their consumer. Usually we are also responsible for the installation of scent diffuser system in their exhibition, trade fair or marketplace.

S: Could you introduce the typical process of your scent branding/marketing project?

L: First we communicate with clients about the business goals, we need to study the client brand, the business proposal for using the scent. After that, perfumers start to blend and test scents and propose to client. Our perfumers have to take training course offered by DEMETER. So they are trained to be more sensitive to all these smells. Finally, our client applies the scent as the way introduced by us.

S: How do you see the value of scent brought to your clients?

L: We do not advocate using scent to substitute visual or auditory stimuli, but to apply the effects which olfaction have but other senses barely have, to complement the consumer experience.

S: Have you ever got feedback from your clients? Does scent work as you expected?

L: We usually would go to the site and check if they are applying the scent in a proper way and see if this scent is fit to the initial purpose. Clients may give us feedback through testing in a real world for a period. Overall, services we provided was highly regarded. But we found the effect is not easy to control, for example, we had a project collaborated with a Japanese Photographer, Yukihiro Shima, design the whole olfactive experience for his photo exhibition, with the theme "Portrait of a scene". We intended to realize the synergy across the vision and olfaction, in order to use scent to convey the meaning that behind the 2D images, ultimately bring stereo experience to the audience. However, different people have different perception of the same smell. Because scent in the environment only pilot people, the perception of the smell is co-functioned by all the senses and also influenced by personal experiences, therefore, their reaction is different, although

our perfumers are tried to present the most congruent smell for the exhibition as they understand the meaning of the theme.

3b. About scent business opportunities & barriers

S: What are the biggest opportunities you see in the scent business?

L: Comparing sight, hearing, or taste, we found smell industry in China is still in early phase of development, staying selling perfume and aroma products. Developing the scent business is a blue ocean in local market. Most Chinese companies have not realized the importance of an olfactory signature. But we realized it has strong business potential.

S: What are the challenges in you scent projects?

L: Chinese people have used toilet water to freshen the body and avoid mosquitoes for a long time, while Western-type perfumes have been in China for just a few decades and have virtually no Chinese cultural roots. Besides, fragrance usage in China is more for special occasions rather than on a daily basis. Therefore we should first cultivate Chinese consumers by introducing them to high-quality scents for everyday use from foreign brands, and as our business broadens, we want to develop fragrances catering to local tastes. For other company collaborated projects, we are still looking for accessible technologies to improve the effectiveness of scent diffuser, especially for large space use.

S: Could you talk about the future plan of the Scent Library?

L: We will keep exploring the real meaning of individualism, and bring new meaning to people's everyday life. On the other hand, we are making efforts to spread the awareness of the value of olfactive experience in business field, wish to realize more and more innovative application.

Appendix B:

Transcripts of Expert Interview 2

These Transcripts are documented and organized based on the recording of the emails and online interviews. All the interviews were in English and written in the first-person narrative style.

Expert: Julia Fernandez , Creative Manager Olfactive Design Studio Global C&A at IFF, New York City

S: Please tell me a little bit about yourself and the IFF? Who are your clients? What industries does IFF serve?

F: International Flavors and Fragrances is a leading global creator of flavors and fragrances used in a wide variety of consumer products. Millions of consumers around the world enjoy our products on a daily basis without ever knowing that we are a key component to that unique scent and taste experience they love. For centuries, we've worked closely with the world's leading brands in developing the scents and tastes for products that have become household names. Consumers experience these flavor and fragrance profiles in beverages, confectionery, dairy, and food products, as well as fine fragrances, beauty care products, detergents, and household goods. By focusing on our core competencies of consumer insight, research & development, and creative expertise, we continue to be an integral part in helping our customers drive consumer preference and grow the equity of their brands. As main clients, we have Procter & Gamble, Unilever, Colgate Palmolive, Estée Lauder, Coty Prestige, Natura, Donna Karan, Calvin Klein, Avon, Henkel and many others.

Regarding myself, I graduated primarily as an Industrial Designer and later in Advertisement, and my dream was to design for Pinifarina. I worked on the engineering and design area of General Motors, and have certainly demystified the process and creation of an automobile. The idea of working on a single car for 5 years was not really what I had in mind to expand my creativity and bring new ideas. And I quickly changed the auto grease and components to molecules and dreams at IFF. I lived very close to IFF in São Paulo, and wondered what would be like to work in a place whose garbage always smells good! That was my perception of IFF while I was coming back home from university, and passing thru very pleasant garbage every single day. In hot summer days in Brazil, IFF garbage smelled like fresh clean clothes! It was wonderful. That same smell makes me smile up to today when I visit IFF Brazil. And as you can imagine, I have fallen in love for scents ever since. That was in 1998. My career started in marketing, in Brazil, and then a great period working in Fine Fragrances for Latin America. It was a powerful school of how to abstract and transform a written briefing into a fragrance that

resonates with the packaging and the advertisement. I knew very little about fragrances, but I suddenly was caught buying books, talking to perfumers and researchers, and smelling e-very single thing would pass in front of my eyes. It was weird times too. Once you get obsessed with fragrances, you can't control not smelling the food, the air, even people's necks, just by the addiction of populating as much as you can your olfactive memory, and catalog every moment as an olfactive inspiration. It is nerve taking, because you can never disassociate smelling with breathing. So I definitely live to smell. At this time, in Brazil I focused my academic research on Luxury Branding Management, and my MBA was focused on it - on how luxury market impacts the impulse and love for fragrances and other goods that are 100% emotional. 6 years ago, IFF invited me to work in the headquarters, and I moved to the USA, and more recently - 3 years ago - IFF decided to invest on a group that is focused on scent as design, looking at potential trends and how to translate them to fragrances. Today I see and feel the world thru my nose. I shape the forms of imagination thinking of its sensorial experience and every take in oxygen is a new inspiration. Sometimes I call myself professional sniffer. But it sounds better to say that we design olfactive experiences. I also contribute to several magazines and sites, with various subjects - from the latest fragrances launched, to design and architecture, which I have never stopped loving as well. At Olfactive Design Studio we are constantly looking for new ways of approaching to trends. We question ourselves into how social cultural facts impact the consumption of fragrances - What does the economical crisis have to do with the higher consumption of vanilla, chocolate and strawberry fragrances and flavors? Why the doomsday surrounding movies and apocalyptical themes impact in the way niche fragrances are evoking animal notes, and leathery accents, and darker woods, and even metallic resemblance of blood. It's just so fascinating I could spend a full day talking about it!

S: What is the technology you use to extract the smell from a certain item or place?

F: When we talk about extracting a scent from a place, or an item, it involves the same technique you would apply to extracting the smell of a living plant. The creativity of IFF's perfumers and fragrance development teams is enhanced by strong R&D techniques and programs. IFF has pioneered in the "living technology" on which we capture the essences of living flowers and transform them into new molecules. The "living" technology basically consists of capturing the molecules of smell that are present in an ambiance (for instance the smell of a street, the smell of someone's home), or a thing (the smell of a rock), and identifying the key elements of that composition thru gas chromatography (if you want, I can explain you in details how it works). When IFF discovered this technique, in 1980s, our leading scientist at that time, Dr. Braja Mookherjee, questioned if the scent of a living flower was fundamentally different from the scent of one that had been plucked from its stem. He analyzed two specimens - one still living, one cut - and discovered that their scents were, in his words, "like night and day," with different chemical components to them. He observed the same phenomenon with other botanicals, including fruits, leaves, and bark. Dr. Mookherjee developed a technique that uses a special needle to extract odor molecules from a living flower, so they could then be analyzed and reproduced. this new technique meant that iff

could capture and study the aroma components of a flower, any flower, at any time of day or night, while it was still alive on the plant. no flowers had to be cut in the process. and as a result, our perfumers gained limitless access to natural scents, including rare flowers, species that are impossible to cultivate in large numbers, and scents that were previously difficult to reproduce in the lab, including lily of the valley, freesia, and honeysuckle. in 1992, Dr. Mookherjee received international recognition for this pioneering work, which has played a major role in many of iff's most successful fragrances and led to multiple fifi® awards. We maintain a living fragrance library database — used by our perfumers all around the world — that preserves all the information needed to recreate a scent.

S: How do you define the story that relates to the certain smell?

F: The story can be told in many angles. We do know that the human sense of smell is the oldest of the senses. that is, it's the first of the five senses that a fetus in the womb develops. and it's the sense that most closely connects us to our memories, since it is hardwired to the brain's limbic system. IFF was the first fragrance supplier to pioneer the notion that fragrance has the power to influence an individual's mood and emotional well-being. for more than 25 years, we have worked scientifically to measure the subjective, behavioral, and physiological effects of scent on emotions. today, as one of the world's largest producers of fragrance ingredients, we're leading our industry through the design of mood-enhancing fragrances that can evoke positive human emotions, such as relaxation, happiness, stimulation, and sensuality. our method, which we call Mood Mapping™, reliably measures the mood associations of aromas — from simple, individual ingredients to finished fragrances in consumer products. Mood Mapping enables our perfumers to improve their understanding of the emotional impacts of our fragrances on consumers.

So, when we combine the mood understanding, to the olfactive ingredients, we can create powerful olfactive stories, full of meaning!

S: Do you have story about smell and culture that you would like to share?

Fragrances are an expression of what's happening in the society. The earliest perfumes consisted on burning woods offered as incense to the gods in the East. Egyptians priests followed with perfumes used in religious rites, and to embalm the dead. The Greeks looked upon a fragrance as medicine, and their physicians prescribed balms, pomades and oils to treat illness. During Roman times, perfumes were used for medicinal and religious purposes – but the Romans also discovered another dimension to scent: pleasure. The aristocracy used perfumes lavishly washing walls and floors with fragranting their baths. They even showered guests with fragrance by scenting the wings of doves and having them fly over the partygoers. And we thought our delivery systems are unique today!) But the modern perfumery only occurred over a period spanning the fall of the Roman Empire and the industrialization of the late nineteenth century. The discoveries of alcohol around 1200, the distillation techniques were discovered in the early Renaissance, including glass

making, botany and chemistry. The rapid advancement of trade, including the discovery of a European route to the Indies, the southern route to Africa the Chinese market, and the identity of the spice-producing islands of the Malayan archipelago, and lastly the new humanism that brought the celebration of the Glory of the man, and popularized the concept of adorning the body.

If we think about the development of main fragrances, they relate directly with society development. Chanel 5 and the usage of synthetic materials were hand in hand with Coco played pivotal roles in establishing the distinctive attitudes of the decade, gained the right to vote, drove their own automobiles, and became more active in their lifestyle – a tremendous shift from conventional dresses to the way they perfumed themselves. The 30's and 40's were marked with the post-depression of the 30's, and again life was changing. The post-war was marked by the rejection of war austerity. Women had once again the feeling of being women. Fragrances become super floral and opulent. The return of men from war also makes sensuality possible again. Fragrances like *l'air du temps* (48), and *Yoth Dew*(53) were a way to rewrite sensuality at a moment where people were relearning to live. The end of the 60's, the new look was shining and women perfumery became light, a physic freedom very far from suffocating predominant codes of sensuality, with quite nonchalance. Fragrances like *Caldenre* (69), invented the new casual and urban life; *Aromatics Elixir* (72) offered a floral and dark sensuality, a disturbing ambiguity, and the alliance of patchouli-rose. The end of the 70's, and beginning of the 80's, chic and luxury years, spangles and strass, women are everywhere and that is to be known. *Giorgio* (82), a white flower composition overwhelmed by carnal sensuality, and *Paris* (83), a romantic and ultra-feminine opulence with a rose-violet bouquet. The end of the 80's and beginning of the 90's was the end of the over era: *au revoir strass*. Time for simplicity and anti-ostentation. In 86, in the US, a fragrance called *Calyx* (86), plays the game of a modern fruity completely opposed to the 80's sensuality. Time for the aquatics and ethereal notes: *Escape* (91), *L'Eau d'Issey* (92) invented the aquatic florals, and the quintessential anti-80's fragrance: *CK One* (94). The new century opened with the trendsetting *Angel* (92), a gourmand, tasty note that anticipated the regression desire, poses sensorial physic pleasure. As a desire to celebrate the beginning of a new millennium, great fragrances of the century end battle the politically correct and disembodied Zen: a forerunner, *Happy* (97), that relearns happiness and glare in reaction to the grey and black surrounding.

We saw the come-back of regressive and gourmand notes back again in the past years, with the financial crisis. When future is uncertain, the past is comforting. Gourmand notes expanded to home fragrances, creating an ambiance of regression, especially to the 50's, where most countries faced an extremely progression. Also the increase of well-being desire, and the focus on beautiful raw materials. The re-discovery of belle perfumery.

S: What do you think about the social and business role of smell?

F: We communicate far more in silent signals, such as our posture, our eye contact and our smell. The social role of smell is to keep us away from our instinctual/animal side – that's why we clean, bathe and use all types of fragranced products, but we want to attract too, which is a bit controversial if you think conceptually of the process. We fragrance ourselves to create pleasure, freshness, and well being among other sensations. We want to seduce via olfactive notes. In a silent or bold expression. A public versus private notion of sexiness: a fragrance with a bold silage, or ones that you need to be really close to someone to feel their smell.

Business role of smell is to make the product or brand acquire another dimension: communicate the invisible, or shape the olfactive form of an idea. It can be used to attract or repel customers, and mostly to intrigue the perception of how they will be seeing your product and/or brand. What is interesting about the business role of smell is that we can engage new "medias" for olfaction. If you think about music, and how the recorded media has evolved to an electronic, "invisible" form, it has been an industry that shifted from material to ethereal. Fragrances are always a challenge, because it seems that we are majorly predominant by the packaging plus liquid form, evolving to some other physicality, such as candles, or powders. But why fragrances need to be in a liquid form? Maybe the business role of marketing will help us be a little bit more audacious in the way we think about fragrances. We are hearing a lot about Neuromarketing, that navigates in the middle of neuroscience and marketing, advertising and product design. We are trying to understand the 3 sections of the brain, and how to surprise it with different olfactive experiences. The Reptilian part is instinctual and represents decisiveness, the Limbic part appeals to the emotions and the Neocortex is the reasoning part with preference for logic and fact. We are expecting that marketing in the future will involve the usage of color, form and texture combined to develop synaesthetic visualizations, and interact all the systems we have.

S: Could you please give me an example and describe the process of how you develop scent product/service for a company? What's the typical steps in this business? What do you do in different phases? How do you communicate with clients to select the specific scent that would meet their brand image and business purpose? Whom do you work with?

F: Perfumery is part art, part science; a traditional craft that has evolved into a modern and sophisticated business. Although contemporary, it's an art that relies more on people than machines – taste, talent, intuition and art, supported by science. The sense of smell is the most powerful trigger of memory, allowing a person to be transported to a particular time and place immediately. At Abercrombie & Fitch, Fierce, A&F's signature fragrance for men, we have re-designed the fragrance to be used in a larger space, so we re-constructed the scent that is automatically spritzed from the lighting tracks by employees. We also developed the scent of technology, in Samsung stores; in which the perfumer developed the scent of technology, a mix of electrical and synthetic notes, with a sense of transparency that can never be invasive.

The process includes usually a brand wanting to expand and create memorable experiences for their customers. It can be a one-shot, or conceptual work, or it can be a business propose to expand the perception of the brand. The client briefing can either come reactively or proactively. The most interesting part is the development of the fragrance. It is very different creating a scent for a “thing” than for a “person”. It can’t be invasive, it needs sophisticated mechanisms of disposing the fragrance, and extracting it from the ambience – or it would become one saturated place – but also leading with the human natural mechanism of getting used to a fragrance.

The selection of the fragrance can be done in a very “authorial” way – the owner, or the designer chooses it, in a very instinctual basis, or we can test with a pre-determined target, that will represent overall likeability of that fragrance for that context. We take in consideration the DNA of the brand, the story of it, why they think fragrance is important to them, what are the main sensorial aspects of the brand – is it a comforting, extremely textural idea, or a clean, fresh and exhilarating one? – and once we have discussed these briefing adjustments, then the perfumers start creating based on the stimuli. The next steps would be having meetings to smell the product, until we choose the final candidates, that they could be on final stages depending on the decision-making process (intuitive, or knowledge based).

S: Could you share with me some sensory branding projects that you think excellent?

F: We do know that smell is an integral part of sensorial experience, and we see brands exploring the concept, and moving forward, a new type of olfactory architecture. Hotels are using the Olfactive branding to generate moods that reflect the establishment. Smart partnerships, like the one that “Le Labo” has done with Le Meridien Hotels. Or even how Singapore Airlines has moved the bar with a coherent olfactive story – from the scent on the fresh warm towels to refresh your face, to the fragrances the flight attendants use, Singapore Airlines tells one linear story about a fragrance that represents them and the country: the smell of the popular “Florida Waters”, a refreshing combination of herbs and citrus notes. As I mentioned before, the fragrance design to create an ambience fragrance differs in structure from traditional perfumes, with top notes, central notes and base notes in a different balance. The scent Le Labo used for Le Meridien is the smell of an old leather book, generating a feeling of homeliness and adventure, and defining the hotel’s image and brand through smell.

Talking about airlines experience, not only airport retail is engaging passengers in a different buying experience, Scent also plays a role in creating a pleasant atmosphere at airports. In New Zealand’s Christchurch airport, a “Sensory Arrival Experience” was created. From the moment passengers land, they are instantly immersed in the images and sounds that evoke the amazing landscape of the South Island. Visitors are greeted by long air bridge corridors, flanked by walls of specially commissioned photography of the South Island’s natural attractions. A soundtrack plays sounds from the environment while smells evoke each of the four main regions of the country. East Midlands Airport in the U.K.

once used cinnamon fragrance to generate a holiday feel while “The scent of departure” fragrances seek to capture the memories of a great vacation at some of the world’s most vibrant cities through the medium of perfume. The “i.wall” project by Sabahat Nawaz examines multiculturalism through dynamic pattern. Each culture could bring traditional patterns into the mix, to merge and combine with those from other diverse backgrounds through digitally animated media.

S: What do you think is the reason for a company to involve scent in its brand expression? How do you see the value of doing so?

F: The main reason is the power that the combination of the 5 senses have in the human brain. By linking an olfactive story to the overall experience, the brand is connecting emotionally with consumers in a more instinctual way.

S: How do you see the challenge/opportunity in this scent market?

F: The challenge the brands will have is not to overwhelm the consumer with the possibility of providing a fragrance trigger on every single brand they see. Once someone asked me if it’s not “subliminal advertising”, like the Coca Cola story on cinema theaters, but if you can feel it, it’s not subliminal. So it will be a learning curve from all of us in the industry, and the quest to engage versus overwhelm. There are also some technical aspects of the fragrance release – you need a good exhausting system to keep the air clean, and the particles can’t have a huge deposition on floor, or even on garments, in the case of fragrances that perfume the ambience of a store.

The main opportunity is that olfaction is one of the five pillars of sensorial marketing. Humans are very sensitive to smell and are capable of distinguishing around 4,000 different scents. Smell is essential at sales points, with the potential to attract or dissuade customers, or even to give more information about the commodities being produced. Large brands and department stores diffuse scents to underline the products being sold, or to guide the customers around the store.

S: What do you think would be a future possibility of utilizing scent to convey meaning?

F: I believe that beyond the brand, you also have many artists that are conveying the message of an idea thru fragrance. In exploiting the subjective, associative impact of smells in combination with visual images, it’s possible to generate a kind of meta-sensory experience that goes beyond purely seeing or smelling. The work, for instance from Ernesto Neto, one of the most famous Brazilian artists on the contemporary art scene. His well-known work is recognizable through his use of polyamide sock-like structures that descend from ceilings in soft biomorphic shapes. Visitors can explore this unusual landscape, experiencing emotions, smell and feel in a physical and sensorial setup. Neto

often uses aromatic spices in his work. Turmeric, clove, cumin and ginger are used for both scent and colour, mapping out the installations with sensorial cues. There's a powerful value on doing so.

Appendix C

Guidance of the Scent Association Workshop

Introduction

The Scent Association Workshop includes two parts – a Focus Group and a Scent Association Test.

During the Focus Group, a coordinator will lead a group discussion around the topic of smell experiences. The following Scent Association Test intends to understand people's competence of scent association and its expression. The coordinator will present eight reagent bottles labelled from A to H, in each of bottle contains a cotton ball soaked with 2 drops of fragrance. The participants will be asked to smell the eight fragrances one by one and describe what they associated with. Workshop is recorded by voice recorder and video camera, all the data will be transformed and interpreted into consumer insights for inspiring strategic sensory design.

Purpose

The Scent Association Workshop aims to 1) understand how people competence of scent association and expression, 2) gain a larger perspective of scent effects, and 3) explore possible approaches of concretizing their expression and association.

Procedure

130 minutes workshop

5 mins: Brief and warm-up

30 mins: Focus Group

80 mins: Scent Association Test (20 mins per person, 4 persons in a group)

15 mins: Group Discussion and Feedback

Main Questions of Focus Group

Scents learning and association

1. How scents affect you in general?
2. Is there any scent that gives you deep impression since you were born? Do you smell that often?
3. Have you come across any special smell after you grow up?
4. Do you have impression of certain place or people with unique smell?

Effects of scent

5. Have you ever experienced a flashback caused by a certain scent? What do you recall and feel? Could you describe the scent and the experience?
6. Have you ever shared these experiences with your friends? What's their reaction?

Scent for identification

7. Have you noticed that some companies use scent in their products and retail store as identity? Could you give me you favoured and unfavoured examples? Why?
8. What scent would you choose to represent yourself? (It could be scent you smelled from objects or places, or you could describe the attributes of the scent. The scent should present your personality, hobbies, not meaning your body smell.)

Instructions of Scent Association Test

Please sniff the scents one by one individually, and talk about what associated by the scents. You may write down key words on post-it to describe the scent, rate their likability, familiarity, etc. You can sniff single scent several times and refresh your nose by sniffing coffee beans.

1. Please describe the first image comes into your mind. The moderator observes their reactions.
2. Do you familiar with the scent? Do you like it? What it reminds you? Please describe what do you associate? (E.g. time, place, persons, events, surroundings. The description can be abstract or particular.)
3. If there's any scent reminds you any brand, please mark them with purple post-it.

Appendix D

Home-Interview Guidance of “ON THE ROAD” project

About lifestyle and personality

Observation: Home setting, household products, living habits, etc.

Questions:

1. What do you do in your leisure time?
2. What is your attitude towards life?
3. Do you care about what people are saying about you?
4. Are you a person who likes taking challenges? Could you give me an example of how you tackle with challenges in your life?
5. When do you think you are in the transition period of life? What was the most impressive thing happened then, no matter what makes you happy or depressed?

About attitudes on shoes

Observation: Shoes family (shoes rack), favorite shoes style, wearing habits, etc.

Questions:

1. Which shoes style do you like best?
2. Do you have stories about shoes?
3. What do you think of wearing worn-out shoes?
4. Do you have attachment with your shoes?

About brand perception and association of ON THE ROAD

Introduction: brand briefing, Tyvek material, target consumers

Questions:

1. What was the first impression of ON THE ROAD shoes?
2. What do you think about the Tyvek material used in shoes design?

3. Which design model is attractive for you? Why?
4. How you understand the meaning of the brand name -ON THE ROAD?

Collage:

Could you describe what you can associate with the concept of “on the road”? (Can be your own experience, stories you have ever heard, or your imagination.)

Could you make a collage with me to represent the scene of “on the road” in your mind? You can select pictures from the album I prepared or search from Internet or your own photo album. At the same time, please tell me why you choose these elements for this collage.

What kind of emotion does this collage bring to you? What kind of sound or background music you would like to listen in such scene? What kind of smell can you associate?